

AL-BAHER

# Mathematics

Primary

3



**First Term**  
Parents' Guide  
With answers



**2023**



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# Student's Resources

## Days of the Week



1 week = 7 days



I learn:

Days of the Week





# The 120 Chart

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100
101	102	103	104	105	106	107	108	109	110
111	112	113	114	115	116	117	118	119	120

## Number Line





# Multiplication Tables

Any number  $\times$  zero  
=Zero



Any number  $\times$  1  
=The same number



1

$1 \times 1 = 1$   
 $1 \times 2 = 2$   
 $1 \times 3 = 3$   
 $1 \times 4 = 4$   
 $1 \times 5 = 5$   
 $1 \times 6 = 6$   
 $1 \times 7 = 7$   
 $1 \times 8 = 8$   
 $1 \times 9 = 9$   
 $1 \times 10 = 10$   
 $1 \times 11 = 11$   
 $1 \times 12 = 12$

2

$2 \times 1 = 2$   
 $2 \times 2 = 4$   
 $2 \times 3 = 6$   
 $2 \times 4 = 8$   
 $2 \times 5 = 10$   
 $2 \times 6 = 12$   
 $2 \times 7 = 14$   
 $2 \times 8 = 16$   
 $2 \times 9 = 18$   
 $2 \times 10 = 20$   
 $2 \times 11 = 22$   
 $2 \times 12 = 24$

3

$3 \times 1 = 3$   
 $3 \times 2 = 6$   
 $3 \times 3 = 9$   
 $3 \times 4 = 12$   
 $3 \times 5 = 15$   
 $3 \times 6 = 18$   
 $3 \times 7 = 21$   
 $3 \times 8 = 24$   
 $3 \times 9 = 27$   
 $3 \times 10 = 30$   
 $3 \times 11 = 33$   
 $3 \times 12 = 36$

4

$4 \times 1 = 4$   
 $4 \times 2 = 8$   
 $4 \times 3 = 12$   
 $4 \times 4 = 16$   
 $4 \times 5 = 20$   
 $4 \times 6 = 24$   
 $4 \times 7 = 28$   
 $4 \times 8 = 32$   
 $4 \times 9 = 36$   
 $4 \times 10 = 40$   
 $4 \times 11 = 44$   
 $4 \times 12 = 48$

5

$5 \times 1 = 5$   
 $5 \times 2 = 10$   
 $5 \times 3 = 15$   
 $5 \times 4 = 20$   
 $5 \times 5 = 25$   
 $5 \times 6 = 30$   
 $5 \times 7 = 35$   
 $5 \times 8 = 40$   
 $5 \times 9 = 45$   
 $5 \times 10 = 50$   
 $5 \times 11 = 55$   
 $5 \times 12 = 60$

6

$6 \times 1 = 6$   
 $6 \times 2 = 12$   
 $6 \times 3 = 18$   
 $6 \times 4 = 24$   
 $6 \times 5 = 30$   
 $6 \times 6 = 36$   
 $6 \times 7 = 42$   
 $6 \times 8 = 48$   
 $6 \times 9 = 54$   
 $6 \times 10 = 60$   
 $6 \times 11 = 66$   
 $6 \times 12 = 72$

7

$7 \times 1 = 7$   
 $7 \times 2 = 14$   
 $7 \times 3 = 21$   
 $7 \times 4 = 28$   
 $7 \times 5 = 35$   
 $7 \times 6 = 42$   
 $7 \times 7 = 49$   
 $7 \times 8 = 56$   
 $7 \times 9 = 63$   
 $7 \times 10 = 70$   
 $7 \times 11 = 77$   
 $7 \times 12 = 84$

8

$8 \times 1 = 8$   
 $8 \times 2 = 16$   
 $8 \times 3 = 24$   
 $8 \times 4 = 32$   
 $8 \times 5 = 40$   
 $8 \times 6 = 48$   
 $8 \times 7 = 56$   
 $8 \times 8 = 64$   
 $8 \times 9 = 72$   
 $8 \times 10 = 80$   
 $8 \times 11 = 88$   
 $8 \times 12 = 96$

9

$9 \times 1 = 9$   
 $9 \times 2 = 18$   
 $9 \times 3 = 27$   
 $9 \times 4 = 36$   
 $9 \times 5 = 45$   
 $9 \times 6 = 54$   
 $9 \times 7 = 63$   
 $9 \times 8 = 72$   
 $9 \times 9 = 81$   
 $9 \times 10 = 90$   
 $9 \times 11 = 99$   
 $9 \times 12 = 108$

10

$10 \times 1 = 10$   
 $10 \times 2 = 20$   
 $10 \times 3 = 30$   
 $10 \times 4 = 40$   
 $10 \times 5 = 50$   
 $10 \times 6 = 60$   
 $10 \times 7 = 70$   
 $10 \times 8 = 80$   
 $10 \times 9 = 90$   
 $10 \times 10 = 100$   
 $10 \times 11 = 110$   
 $10 \times 12 = 120$



# Calendar



January

Sat	Sun	Mon	Tues	Wed	Thurs	Fri
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					



February

Sat	Sun	Mon	Tues	Wed	Thurs	Fri
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28					



March

Sat	Sun	Mon	Tues	Wed	Thurs	Fri
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		



April

Sat	Sun	Mon	Tues	Wed	Thurs	Fri
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30



May

Sat	Sun	Mon	Tues	Wed	Thurs	Fri
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				



June

Sat	Sun	Mon	Tues	Wed	Thurs	Fri
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30		





July

Sat	Sun	Mon	Tues	Wed	Thurs	Fri
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31						



August

Sat	Sun	Mon	Tues	Wed	Thurs	Fri
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			



September

Sat	Sun	Mon	Tues	Wed	Thurs	Fri
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	



October

Sat	Sun	Mon	Tues	Wed	Thurs	Fri
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					



November

Sat	Sun	Mon	Tues	Wed	Thurs	Fri
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30			



December

Sat	Sun	Mon	Tues	Wed	Thurs	Fri
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31



# General Revision

## Revision (1)



**1 Find the result:**

543

+

232

204

+

532

389

-

172

504

-

204



**2 Compare using (>, < or =):**

139



452

215



200 + 15

652



231

300 + 20 + 7



372

295



295

9 + 310



390

324



300 + 20 + 4

123 + 100



123 - 100



**3 Complete in the same pattern:**

1 12, 14, 16, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_

2 97, 90, 83, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_

3 5, 10, 15, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_

4 90, 80, 70, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_

5 33, 44, 55, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_





Nour divided a pizza into 4 parts. She gave her brother one part.

Write the fraction that represents the left parts.

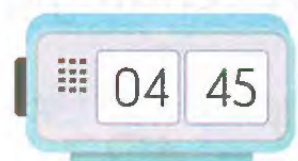
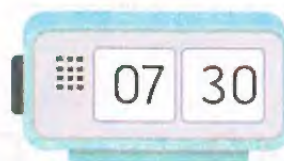
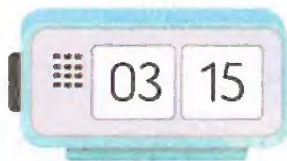
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Draw the hands that show the time:



Complete:

- 1 The square has \_\_\_\_\_ sides \_\_\_\_\_ in length.
- 2 The rhombus has \_\_\_\_\_ sides \_\_\_\_\_ in length.
- 3 Five hundred, thirty-four (in standard form) \_\_\_\_\_
- 4  $324 =$  \_\_\_\_\_ Hundreds, \_\_\_\_\_ Tens, \_\_\_\_\_ Ones.



## Revision (2)



**Find the result:**

753	519	897	970
+	+	-	-
129	337	438	238
.....	.....	.....	.....



**Arrange the following:**

**A** 729 , 591 , 314 , 413

Ascendingly: ....., ....., ....., .....

**B** 423 , 342 , 525 , 995

Descendingly: ....., ....., ....., .....



**Answer the following:**

A fruitseller bought 65 kg of bananas and 48 kg of oranges.  
Find the total weight of the fruits.

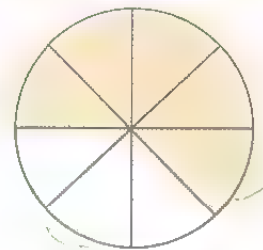
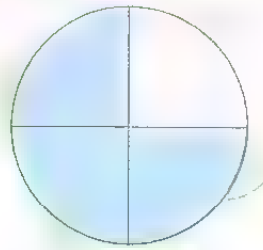
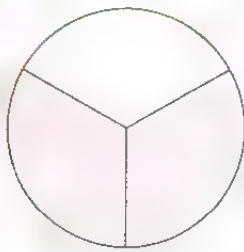
.....

.....

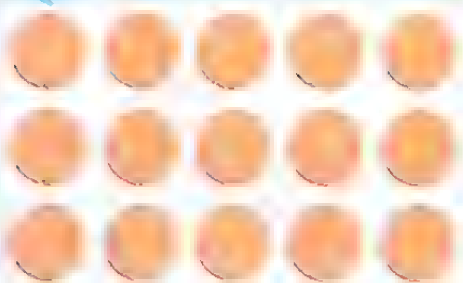




Write the fraction for the colored part of the shape:



A Complete:



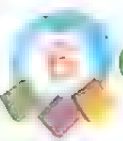
No. of rows: ....., No. of columns: .....

Name of the array .....

The sum by rows .....

The sum by columns .....

B How many more students prefer apples than who prefer bananas? .....



Count, then write the total amounts:



.....



.....



# Chapter One



Lesson (1)

**Patterns**

Lesson (2)

**Bar graph**

Lesson (3)

**Pictograph**

Lesson (4)

**Line plot**

Lessons (5 - 7)

**Measuring lengths in centimeter and meter**

Lesson (8)

**Measuring lengths in millimeter**

Lessons (9, 10)

**Measuring lengths**



# Chapter One Outcomes

## Lesson (1)

- Learn the routines of the daily math block.
- Determine the next two elements in a pattern.
- Identify repeating and arithmetic patterns.

## Lesson (2)

- Identify elements of a bar graph.
- Organize, represent, and analyze data from a bar graph.

## Lesson (3)

- Identify the elements of a pictograph.
- Create a pictograph from a data table.
- Explain the meaning of scale in a pictograph.
- Determine an appropriate graphing question.

## Lesson (4)

- Identify the elements of a line plot.
- Create a line plot.
- Collect and record data.

## ✧ Lessons (5 - 7)

- Discuss centimeter and meter measurement.
- Determine whether to use centimeters or meters to measure length.
- Measure the length of objects in centimeters and meters.
- Use measurement data to create a class line plot.
- Estimate the length of objects in centimeters and meters.
- Demonstrate understanding of the relationship between centimeters and meters.

## Lesson (8)

- Demonstrate understanding the centimeters are composed of millimeters.
- Determine whether to use centimeters or meters to measure length.
- Measure the length of objects in millimeters.
- Describe the pattern they observe when measuring the same object in millimeters and centimeters.

## ✧ Lessons (9,10)

- Use a table to record data.
- Evaluate their personal progress using a checklist.
- Measure the length of objects.
- Explain how they will use their new learning in their daily lives.
- Determine whether to use millimeters, centimeters, or meters to measure length.
- Create a line plot using their collected data.



# Chapter (1)

## Lesson (1)

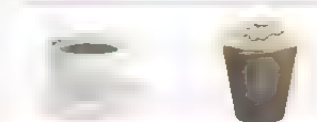
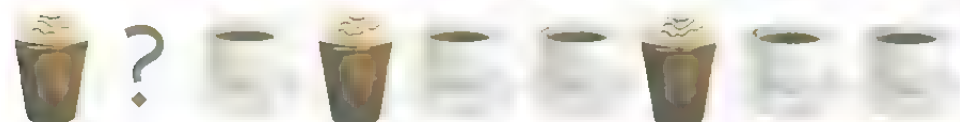
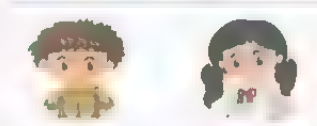
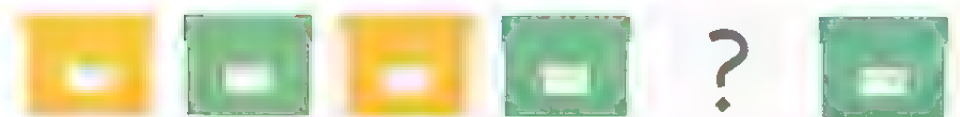
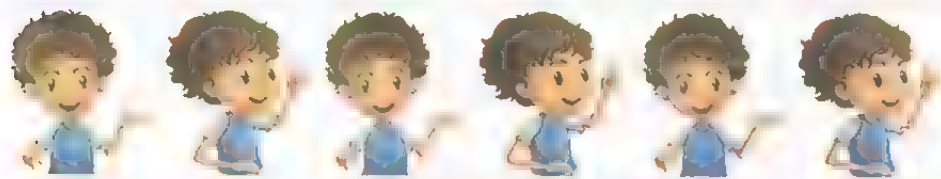
### Patterns

A sequence of shapes, symbols or numbers according to a certain rule.

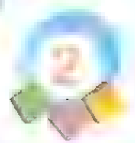
#### Visual patterns



Circle the shape that comes next:







Complete as the example:



I can complete visual patterns.

# Lesson

1

## Numbers Pattern

Complete the pattern according to the rule:

1 2 , 4 , 6 , 8 , 10 , 12

Rule

Each number increases by

2 20 , 17 , 14 , 11 , 8 , 5

Rule

Each number decreases by

Complete the pattern according to the rule:

5

10

15

.....

.....

.....

Rule

(+5)

20

40

60

.....

.....

.....

Rule

(+20)

27

30

33

.....

.....

.....

Rule

(+3)

48

46

44

.....

.....

.....

Rule

43

46

49

.....

.....

.....

Rule

(+3)

30

28

26

.....

.....

.....

Rule







Find the rule, then complete the patterns:

Rule

2 , 4 , 6 , \_\_\_\_\_ , \_\_\_\_\_ , \_\_\_\_\_

50 , 45 , 40 , \_\_\_\_\_ , \_\_\_\_\_ , \_\_\_\_\_

10 , 20 , 30 , \_\_\_\_\_ , \_\_\_\_\_ , \_\_\_\_\_

42 , 35 , 28 , \_\_\_\_\_ , \_\_\_\_\_ , \_\_\_\_\_

47 , 45 , 43 , \_\_\_\_\_ , \_\_\_\_\_ , \_\_\_\_\_

21 , 18 , 15 , \_\_\_\_\_ , \_\_\_\_\_ , \_\_\_\_\_

16 , 14 , 12 , \_\_\_\_\_ , \_\_\_\_\_ , \_\_\_\_\_

82 , 92 , 102 , \_\_\_\_\_ , \_\_\_\_\_ , \_\_\_\_\_

54 , 62 , 70 , \_\_\_\_\_ , \_\_\_\_\_ , \_\_\_\_\_

92 , 87 , 82 , \_\_\_\_\_ , \_\_\_\_\_ , \_\_\_\_\_



I learnt to complete patterns and conclude the rule.

Al-Baher - Primary (3) / First Term

# Lesson



Match each pattern to its rule:

2 4 6 8 10

3 6 9 12 15

65 60 55 50 45

22 19 16 13 10

80 90 100 110 120

4 24 44 64 84

40 32 24 16 8

100 90 80 70 60

$+3$

$+3$

$-5$

$-3$

$+10$

$-10$

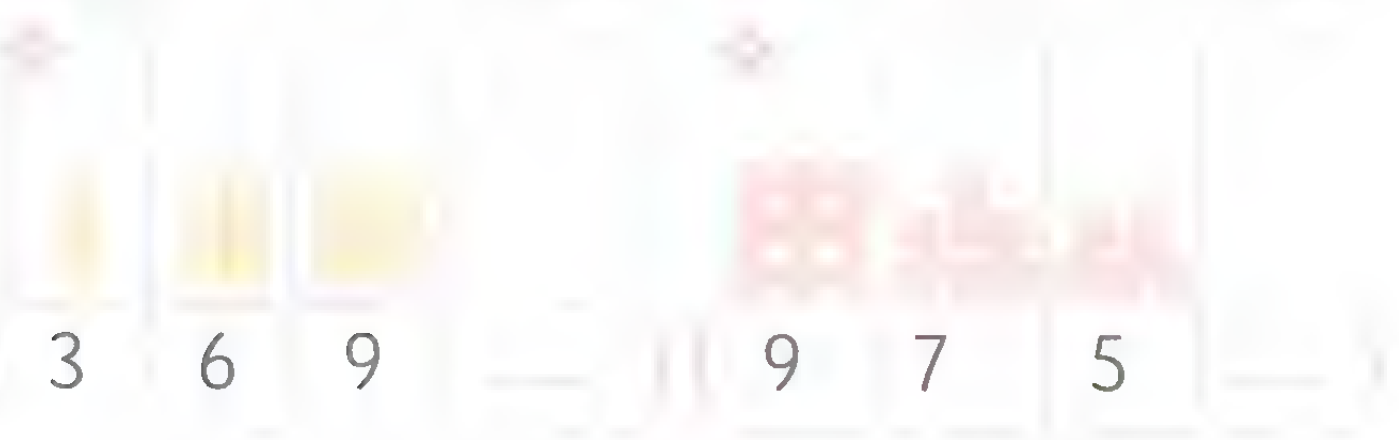
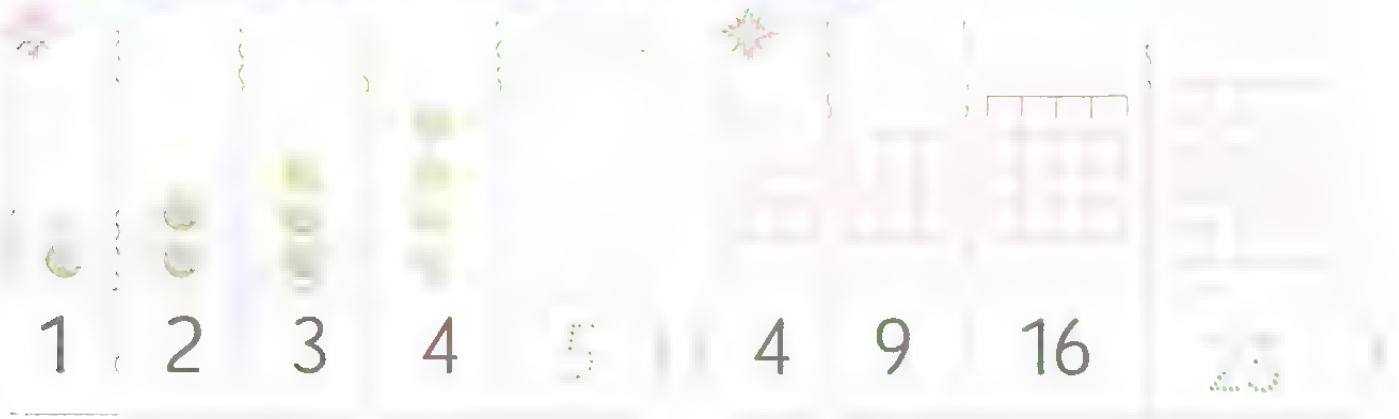
$+10$

$-10$





4 Draw to complete the pattern, then write the numbers of items in each step:



Chapter (1)  
Lesson  
(2)

# Bar graph

A way to represent data on vertical or horizontal bars.

## Reading bar graph

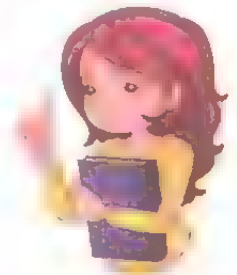


vertical  
axis

The speed of animals by kilometer per hour

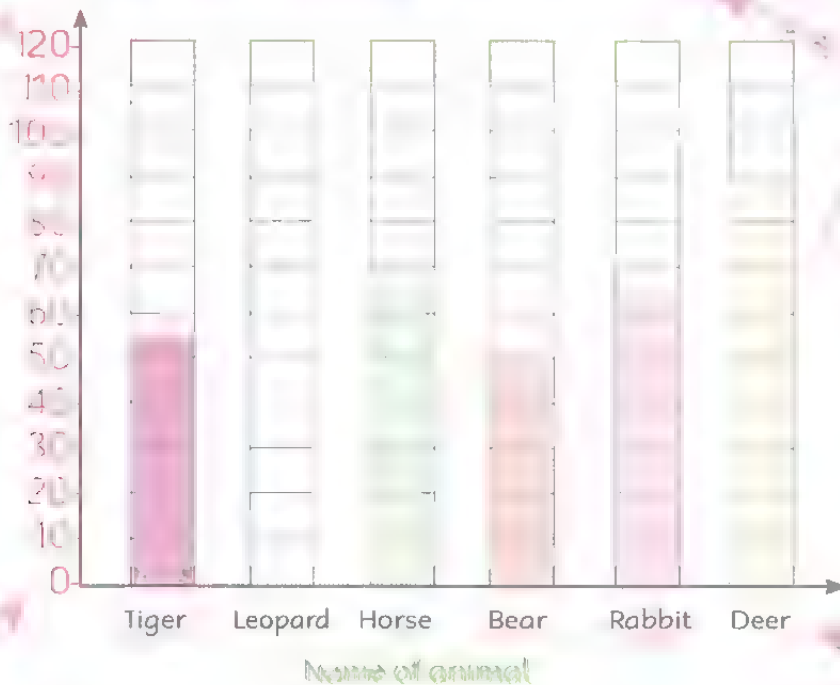
The title of  
the bar graph

Bar graph helps you  
to compare data



horizontal  
axis

The  
scale



## Complete

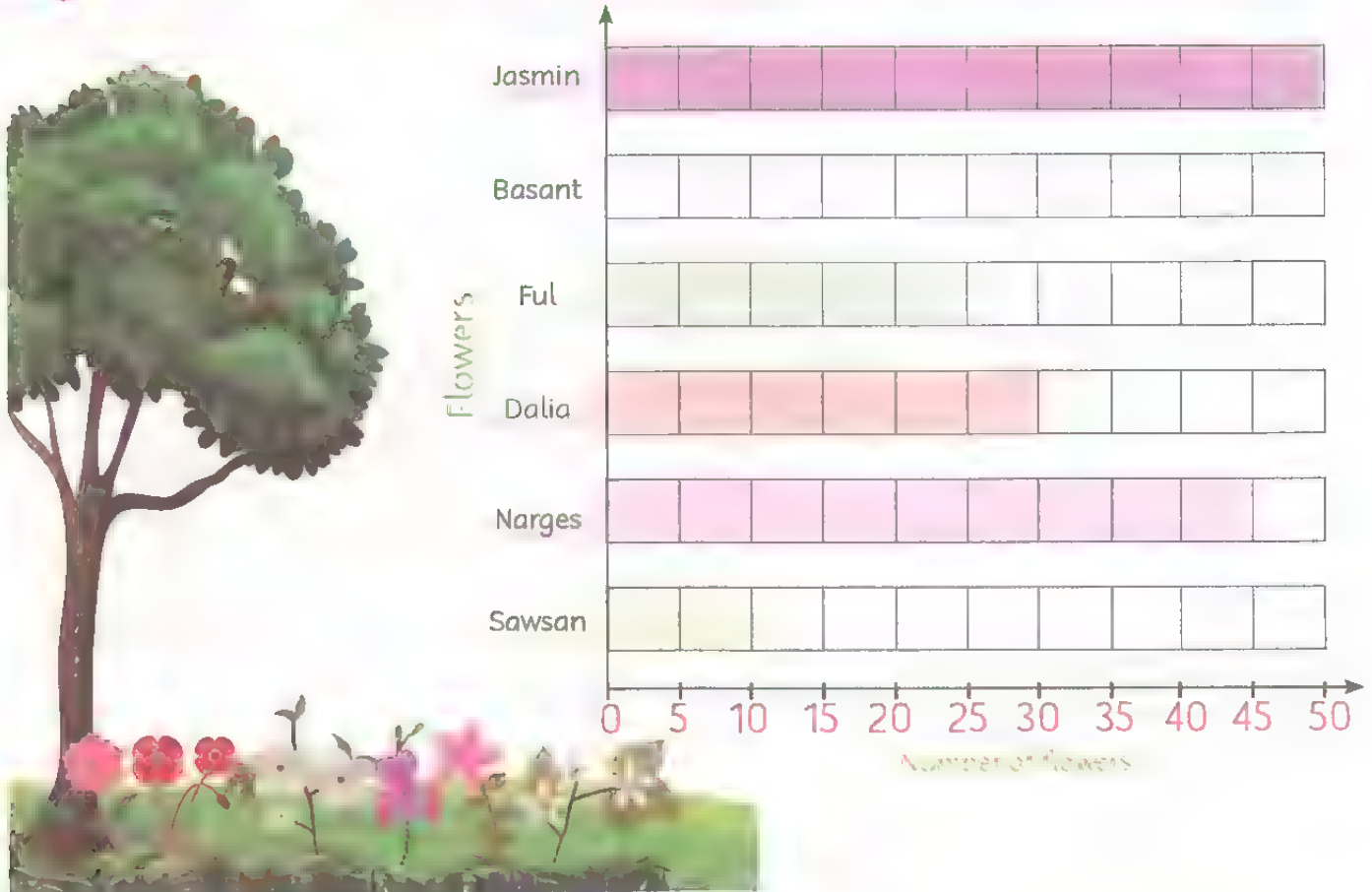
- Which animal is the fastest? \_\_\_\_\_
- Which animal is the slowest? \_\_\_\_\_
- How fast is the tiger? \_\_\_\_\_
- Which animal has the least speed the bear or the rabbit? \_\_\_\_\_
- Which animal has the most speed the leopard or the deer? \_\_\_\_\_
- Arrange the animals ascendingly according to the speed.  
\_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_







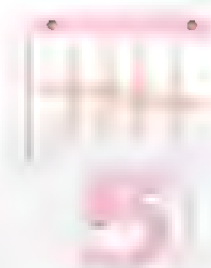
Use the bar graph to answer the questions:



- 1 What does the bar graph represent? \_\_\_\_\_
- 2 What scale did you use? \_\_\_\_\_
- 3 How many flowers are the ful? \_\_\_\_\_
- 4 What is the least number of flowers? \_\_\_\_\_
- 5 What is the greatest number of flowers? \_\_\_\_\_
- 6 How many more narges than sawsan? \_\_\_\_\_
- 7 Which flower is more than 40 but less than 50? \_\_\_\_\_
- 8 What is the total number of flowers? \_\_\_\_\_
- 9 Arrange the flowers ascendingly according to their numbers.



## Tally Marks



A teacher asked his students about their favorite day and he organized the results in a tally table.

Sunday Monday Wednesday Thursday

Monday Sunday Thursday Tuesday

Tuesday Thursday Thursday Wednesday

Wednesday Thursday Wednesday Monday

Thursday Wednesday Thursday Wednesday

Favorite day

Sunday 2

Monday 3

Tuesday 2

Wednesday 6

Thursday 7



Draw the tally marks that represent each number.

Number  
Tally

3

5

8

11

16





- 2 The picture shows a set of farm animals. Record number of animals using tally marks:



## Farm animals

Animal	Tally marks	Number
--------	-------------	--------

Horses

Sheep

Hens

Geese

Cows

The total numbers of animals =

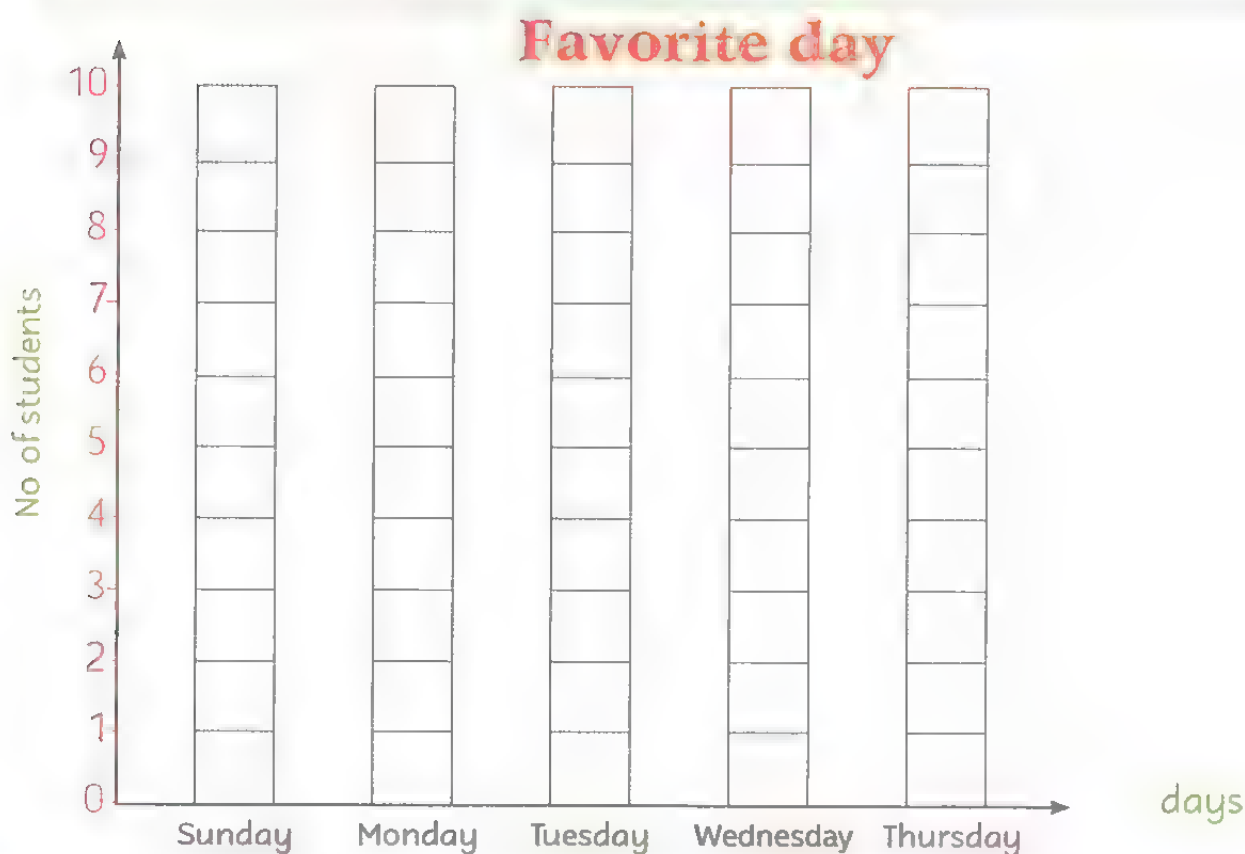
+ + + + =

# Lesson 2



3 Complete the table, then color the graph to show the data:

Day	Tally marks	No. of students
Sunday		
Monday		
Tuesday		
Wednesday		
Thursday		



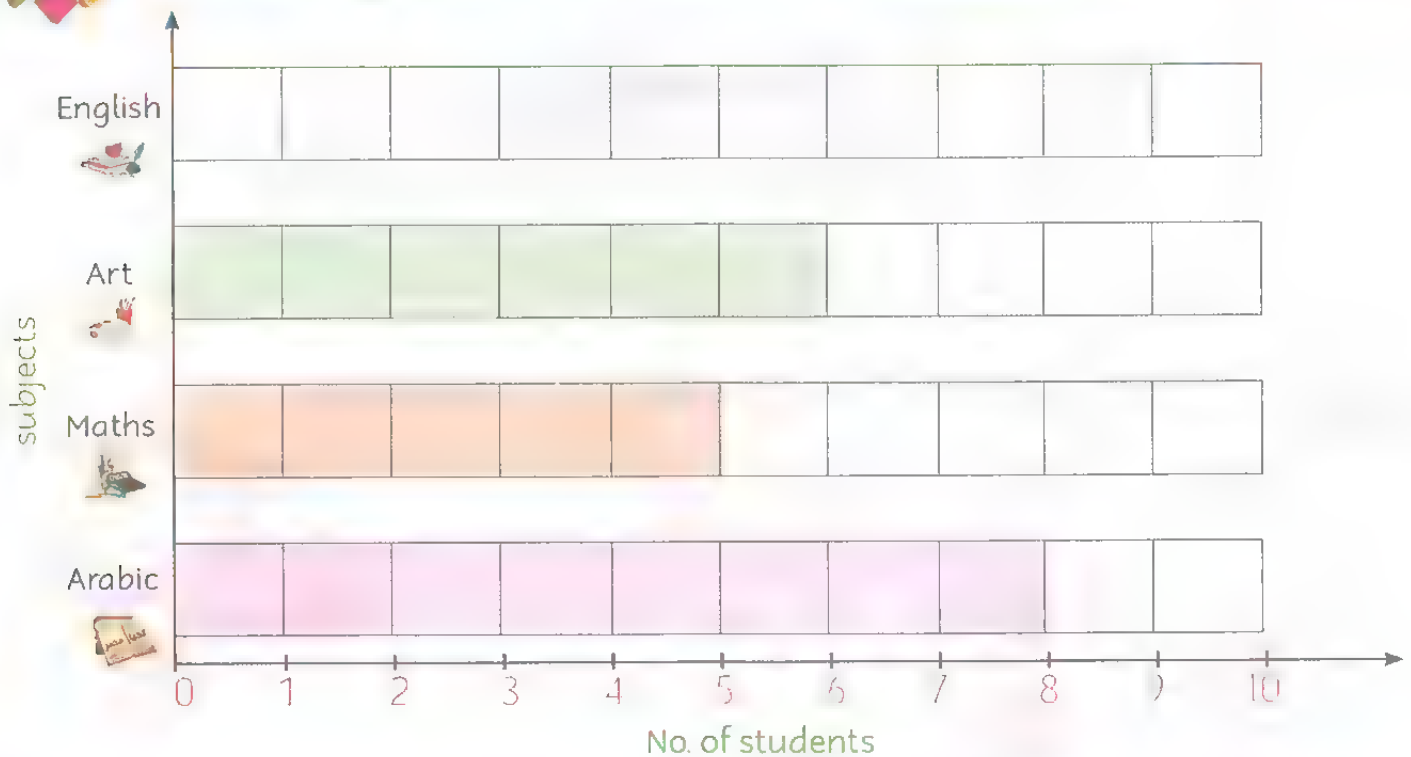
The most favorite day for students is \_\_\_\_\_

The least favorite day for students is \_\_\_\_\_





Use the bar graph to complete the table:



Subject

Arabic

Maths

Art

English

Tallies

No. of students

- The most favorite subject is .....
- The least favorite subject is .....
- No. of students who preferred maths is less than English by .....
- Arrange the favorite subjects descendingly according to the number of students.

## Pictograph

In pictograph, we use pictures instead of bars to represent data and it contains a key.



Use the pictograph to answer the questions:

### Favorite Sport

Football



Basketball



Volleyball



Handball



Key

= 2 students

### Complete

- 1 The most favorite sport is \_\_\_\_\_.
- 2 The least favorite sport is \_\_\_\_\_.
- 3 How many more students who preferred football than basketball? .....
- 4 How many less students who preferred basketball than handball? .....
- 5 Arrange sports ascendingly according to no. of students.





2 Use the pictograph to complete the table, then answer the questions:

## Transport used to go to school

By bus



By car



By bike



= students

By bus

By car

By bike

## Answer

- 1 What is the transport used by most students to go to school? .....
- 2 What is the transport used by least students to go to school? .....
- 3 How many students who go to school by car? .....
- 4 What is the total No. of students who use bus and car? .....
- 5 What is the difference between No. of students who use the car and those who use the bike? .....

## Lesson 3



Use the table of tally marks that show favorite player to complete the pictograph:

Favorite player	Tallies	Number
Tarek Hamid		10
Shikabala		15
El-Nenny		15
Mohamed Salah		20

Favorite player	
Tarek Hamid	
Shikabala	
El-Nenny	
Mohamed Salah	

Key



= 5 students

- The most favorite player is .....
- The least favorite player is .....
- What is the total number of students who prefer Mohamed Salah and Shikabala? .....
- How many more students who prefer Mohamed Salah than Tarek Hamid? .....





4 Write the total of tally marks, then complete the pictograph:

Fruit	Tallies	Number
Apples		
Oranges		
Bananas		



## Favorite Fruit

Apples

Oranges

Bananas

Key



= 2 students



5 Use the pictograph to complete the table of tally marks:

## Favorite Birds

Pigeon

Hoopoe

Egret

Parrot



Birds

Tallies Number

Pigeon

Hoopoe

Egret

Parrot

Key



= 1 student

# Chapter (1)

## Lesson (4)

### Line plot

It is a way that shows the data as (x) above a number line.



Samir tossed the dice 16 times and recorded the results in the following table, then he represented them on line plot:

①	2	5	3
3	3	4	4
2	6	2	3
4	1	3	⑥



The Shown Numbers







Use the data in the table to draw a line plot:

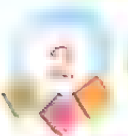
Students' age in years

12	10	11	11
11	12	11	10
10	11	12	10



Age in years

1 student = 1 student



Use the data in the table to draw a line plot:

Weekly hours for homework

Weekly hours for homework

Hours

Tallies

8

||||

9

|

10

||||

11

||||



No. of hours

1 student = 1 student



Answer these questions:

How many students who spend 10 hours doing homework?

How many students who spend 11 hours doing homework?

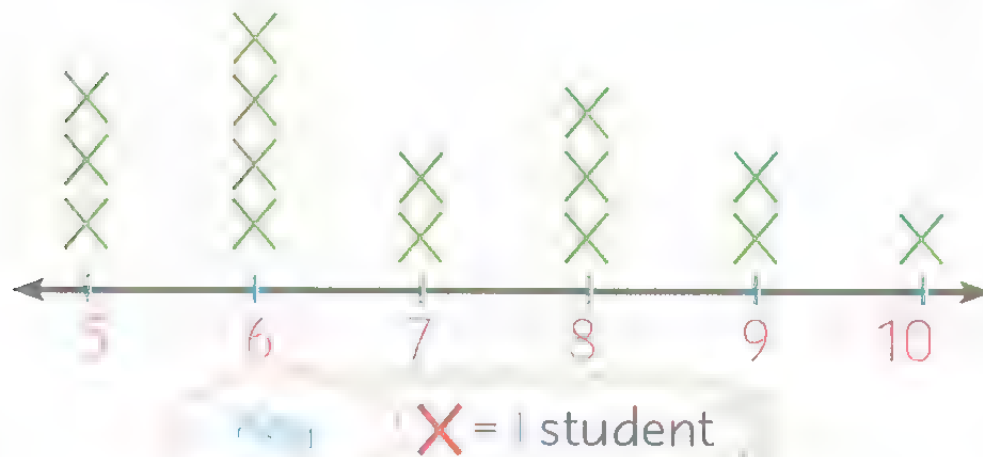
What time has the least tallies?

## Lesson 4



The line plot shows the daily pocket money for number of students:

Daily pocket money in pounds



Which daily pocket money do the most students have?

Which daily pocket money do the least students have?

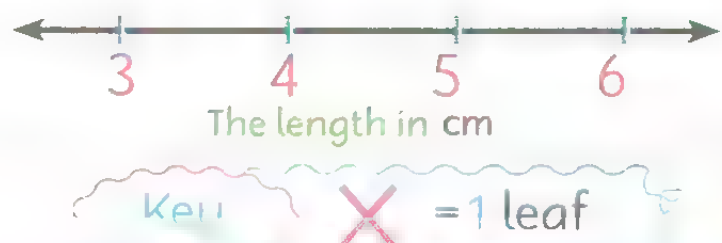


The following data shows lengths of some leaves in centimeter. Represent this data on the line plot:

Length of leaves in cm

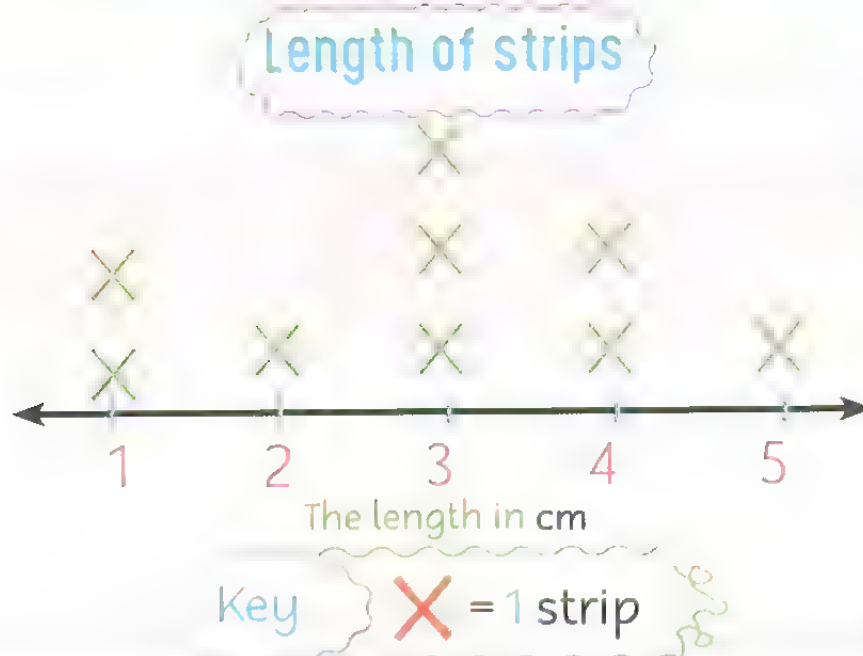
3	4	6
5	5	4
3	3	5
4	4	5

Length of leaves in cm

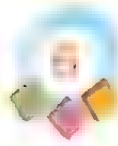




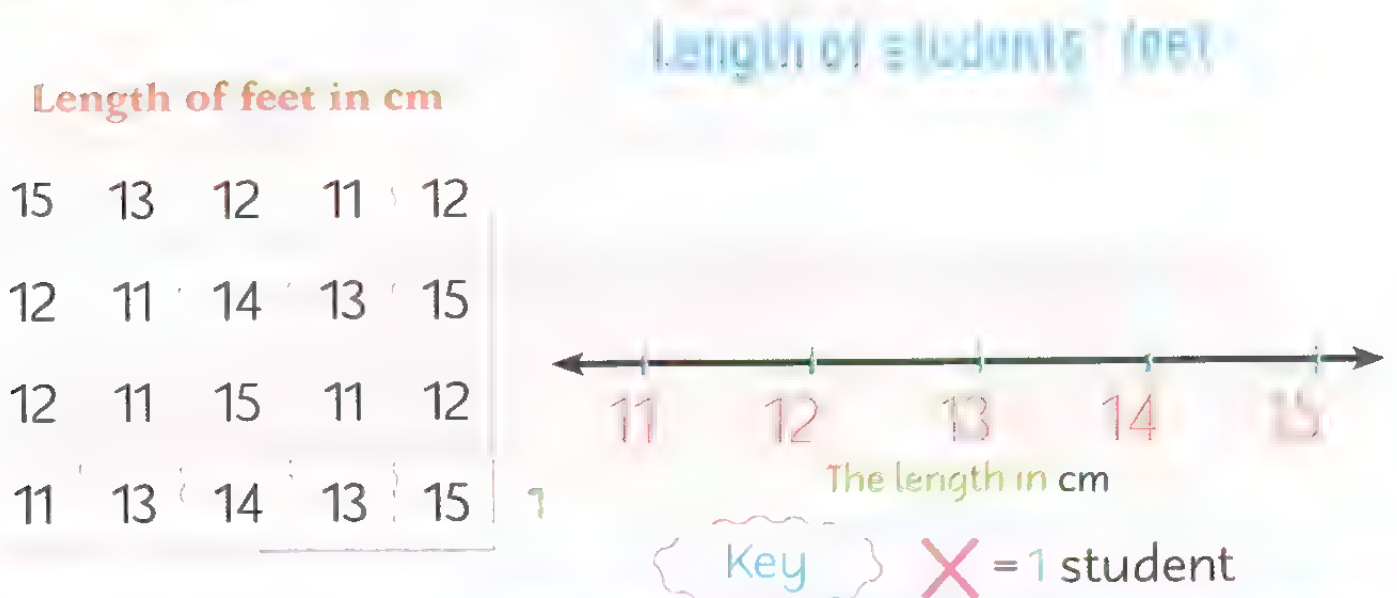
Dalia created a line plot for the length of strips she has:



- Number of strips with length of 3 cm = \_\_\_\_\_
- Number of strips with length of 5 cm = \_\_\_\_\_
- Dalia has 3 strips with length of \_\_\_\_\_ cm.
- The total number of strips that Dalia has = \_\_\_\_\_ strips



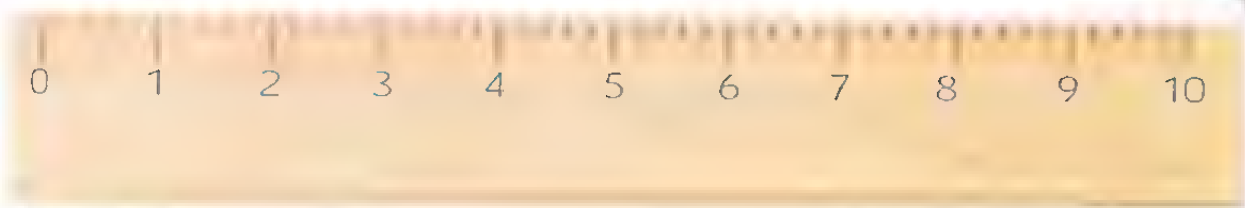
A teacher measured the length of students' feet.  
Represent it on the line plot:





## Chapter (1) Lessons (5-7)

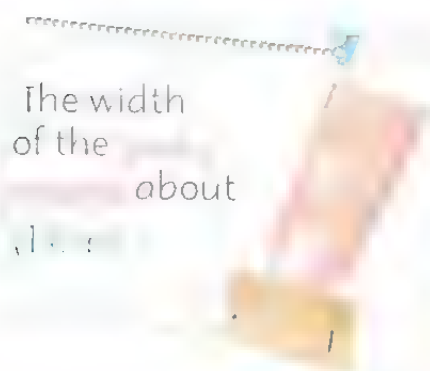
# Measuring Using the Ruler



The ruler is a measuring tool used to measure the lengths of small objects.



Through the written numbers on the ruler, we determine the length.



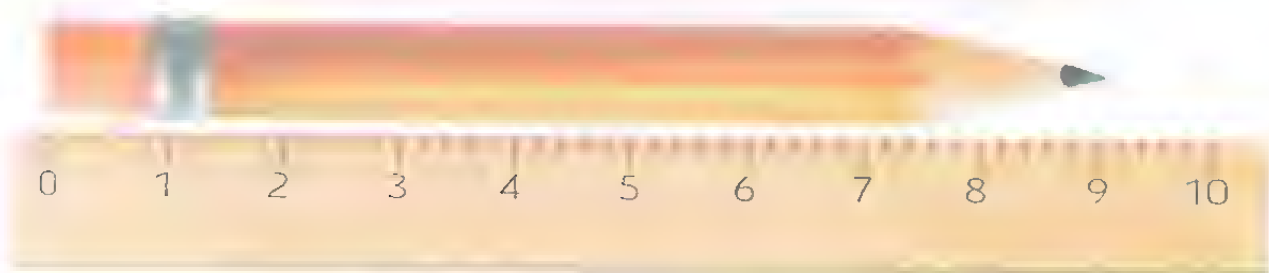
Centimeter is the distance between two consecutive numbers



The ruler is divided into small units called centimeters

cm

Line up the edge of the object with the zero mark on the ruler



The length of the pencil is 9 cm





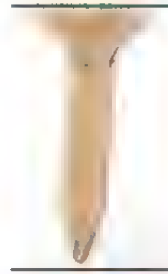
Use the ruler to measure the length of each item in cm:



.....cm



.....cm



.....cm



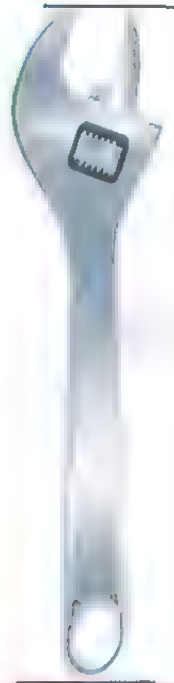
.....cm



.....cm



.....cm



.....cm



.....cm



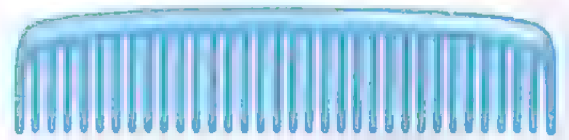
# Lessons 5-7



Use the ruler to measure the lengths in centimeters, then compare using ( $>$ ,  $<$  or  $=$ ):



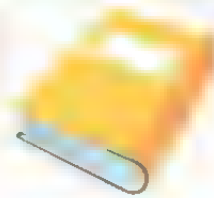
\_\_\_\_\_ cm



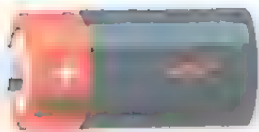
\_\_\_\_\_ cm



\_\_\_\_\_ cm



\_\_\_\_\_ cm



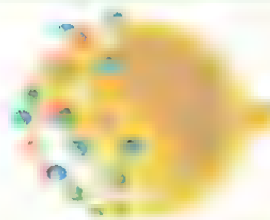
\_\_\_\_\_ cm



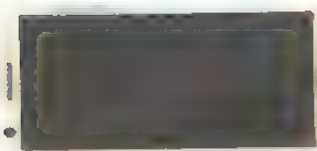
\_\_\_\_\_ cm



\_\_\_\_\_ cm



\_\_\_\_\_ cm



\_\_\_\_\_ cm



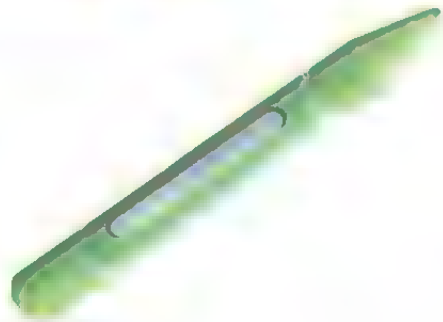
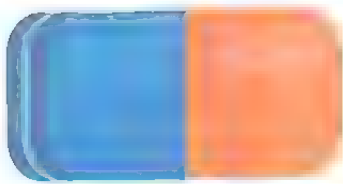
\_\_\_\_\_ cm







Use the ruler to measure the lengths in cm, then complete:



## A) Complete

- 1 The length of the pencil = .....
- 2 The length of the eraser = .....
- 3 The length of the crayon = .....
- 4 The length of the clip = .....
- 5 The longest item is .....
- 6 The shortest item is .....
- 7 The total length of the pencil and the eraser = ... cm
- 8 The difference between the length of the pencil and the crayon = .....

## B) Arrange these objects from the shortest to the longest.

.....



## Measuring lengths in meter

The  
meter

is used to measure longer objects and marked as (m)

1 meter = 100 centimeters

1 m = 100 cm



Write the suitable unit in the correct space:

Meter

Centimeters

I'm the room. My length is 4 .....



I'm the pencil. My length is 13 .....



I'm the table. My length is 2 .....



I'm the football pitch. My length is 50 .....



I'm the nail. My length is 5 .....

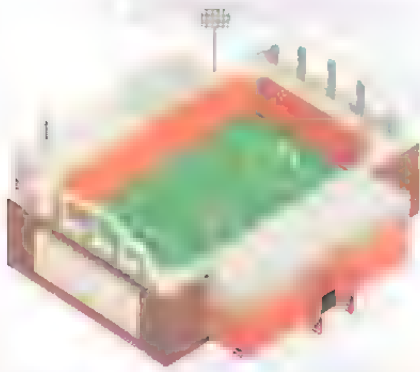


I'm the door. My length is 2 .....





Circle the suitable unit for measuring the lengths of the following:



cm

m



cm

m



cm

m



cm

m



cm

m



cm

m



cm

m

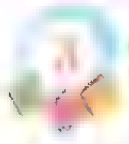


cm

m



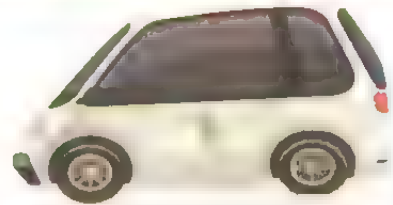
# Lessons 5-7



Estimate and write the suitable unit (cm - m):



about 3 \_\_\_\_\_



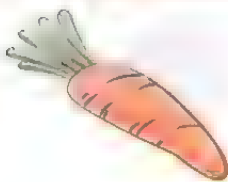
about 2 \_\_\_\_\_



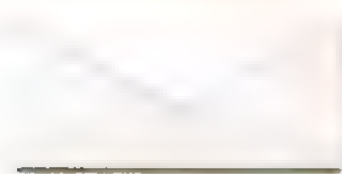
about 65 \_\_\_\_\_



about 11 \_\_\_\_\_



about 16 \_\_\_\_\_



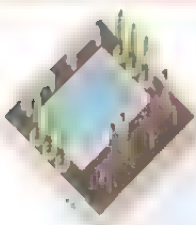
about 14 \_\_\_\_\_



about 15 \_\_\_\_\_



about 20 \_\_\_\_\_



about 40 \_\_\_\_\_



about 18 \_\_\_\_\_





Rana measured the lengths of some strings in cm. She recorded the lengths in the following table to determine the most frequent length:

7	10	10	8	9	10	11	10	9
7	12	14	13	12	9	12	9	13
14	13	12	13	14	11	13	11	10
10	13	10	14	12	13	14	12	13

Represent the data on the line plot, then answer the following questions:

Title: .....



Key      X = .....

1. What is the most frequent length? .....
2. What is the least frequent length? .....
3. Arrange the lengths from the most frequent to the least frequent.

# Lessons 5-7



Measure the length of the items, complete the table, then create a line plot for these data:



Length	Tallies
2	
3	
4	
5	
6	

Title: \_\_\_\_\_



The length in cm

X = one item





Complete as the example:

$$600 \text{ cm} = \dots\dots\dots 6 \dots\dots\dots \text{ m}$$

$$400 \text{ cm} = \dots\dots\dots \text{ m}$$

$$800 \text{ cm} = \dots\dots\dots \text{ m}$$

$$700 \text{ cm} = \dots\dots\dots \text{ m}$$

$$300 \text{ cm} = \dots\dots\dots \text{ m}$$

$$7 \text{ m} = \dots\dots\dots 700 \dots\dots\dots \text{ cm}$$

$$3 \text{ m} = \dots\dots\dots \text{ cm}$$

$$5 \text{ m} = \dots\dots\dots \text{ cm}$$

$$2 \text{ m} = \dots\dots\dots \text{ cm}$$

$$4 \text{ m} = \dots\dots\dots \text{ cm}$$



Match the equal lengths as the example:

5 meters

3 meters

400 centimeters

600 centimeters

8 meters

500 centimeters

6 meters

800 centimeters

300 centimeters

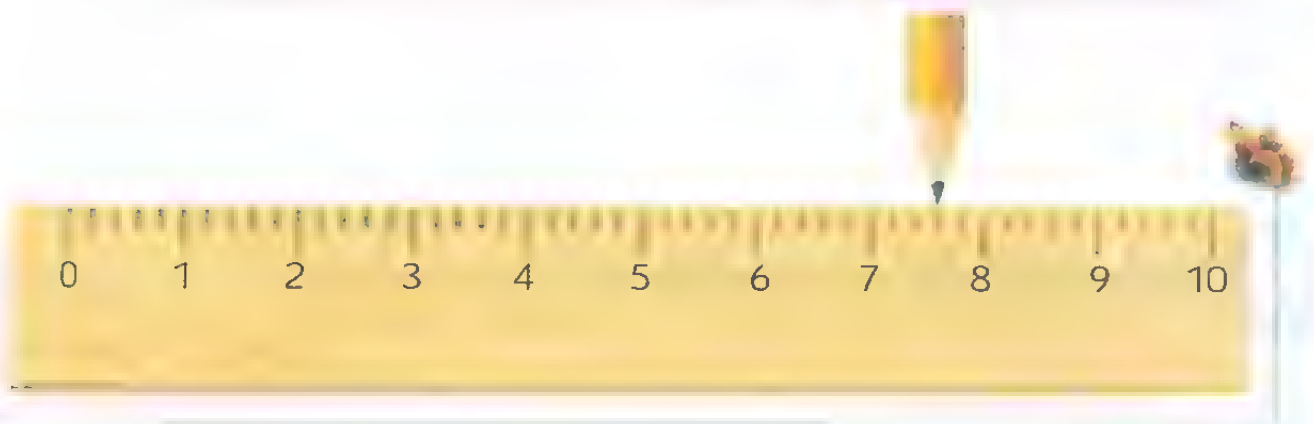
4 meters

# Measuring Lengths In millimeter

## Chapter (1) Lesson (8)

### Millimeter

It is a length measuring unit used to measure very small objects. It's a very small part of the centimeter. It's about the width of the point of the end of your pencil.



1 centimeter = 10 millimeters  
1 cm = 10 mm



Complete as the example:

1 centimeter = 10 millimeters

2 centimeters = ..... millimeters

3 centimeters = ..... millimeters

4 centimeters = ..... millimeters

5 centimeters = ..... millimeters

6 centimeters = ..... millimeters

7 centimeters = ..... millimeters

8 centimeters = ..... millimeters

9 centimeters = ..... millimeters

10 centimeters = ..... millimeters





Color each two equal lengths in the same color as the example:



10 mm =

80 mm =

90 mm =

70 mm =

7

150 mm =

170 mm =

60 mm =

100 mm =

Complete as the example:





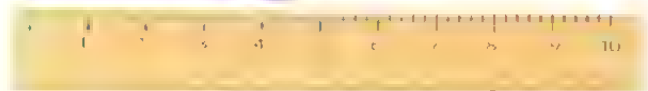
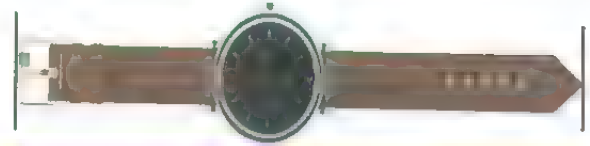
# Lesson 8



Write the length of the following objects:



..... millimeters



..... millimeters



..... millimeters



..... millimeters



..... millimeters



..... millimeters



..... millimeters

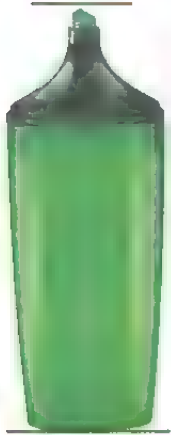


..... millimeters





Use the ruler to measure the lengths in millimeter:



..... mm



..... mm



..... mm



..... mm



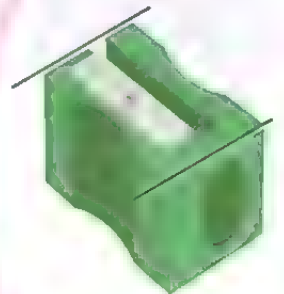
..... mm



..... mm



..... mm

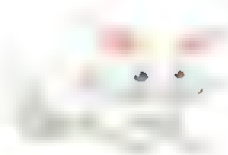
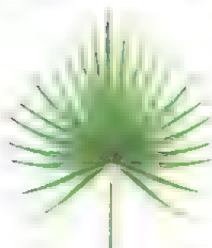
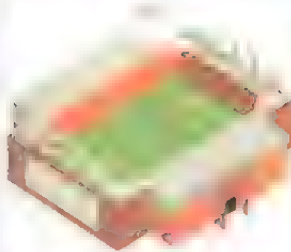
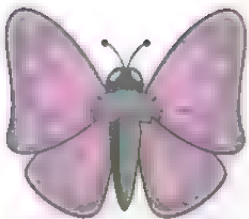
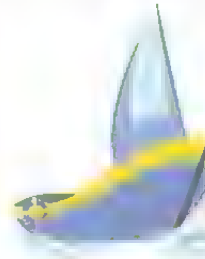
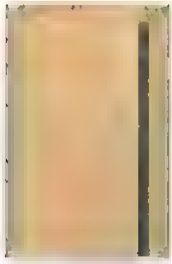


..... mm

# Lesson 8



Circle the suitable measuring unit for each item:



## Chapter (1) Lessons (9, 10)



1 Use the ruler to measure the lengths of the following lines as the example:



$$4 \text{ cm} = 40 \text{ mm}$$



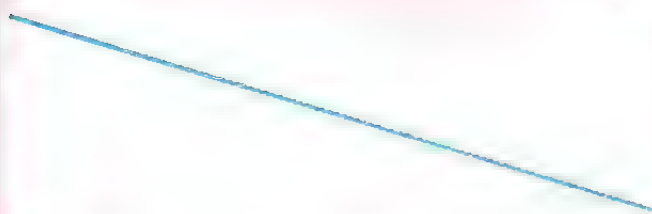
$$\dots \text{ cm} = \dots \text{ mm}$$



$$\dots \text{ cm} = \dots \text{ mm}$$



$$\dots \text{ cm} = \dots \text{ mm}$$



$$\dots \text{ cm} = \dots \text{ mm}$$



$$\dots \text{ cm} = \dots \text{ mm}$$



$$\dots \text{ cm} = \dots \text{ mm}$$



$$\dots \text{ cm} = \dots \text{ mm}$$





# Lessons 9,10



Shade the suitable measuring unit for each object:



m      cm      mm



m      cm      mm



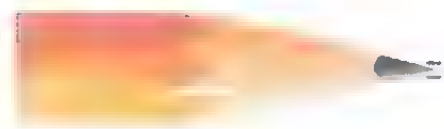
m      cm      mm



m      cm      mm



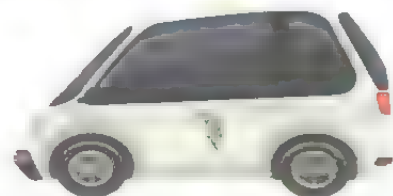
m      cm      mm



m      cm      mm



m      cm      mm



m      cm      mm



3 Choose the suitable unit for measuring the lengths of each of the following items:

- |                    |               |
|--------------------|---------------|
| 1 Flag pole height | (mm - cm - m) |
| 2 Crayon length    | (mm - cm - m) |
| 3 Insect length    | (mm - cm - m) |
| 4 Pencil tip width | (mm - cm - m) |
| 5 Car length       | (mm - cm - m) |
| 6 Book width       | (mm - cm - m) |

4 Complete using the figure:



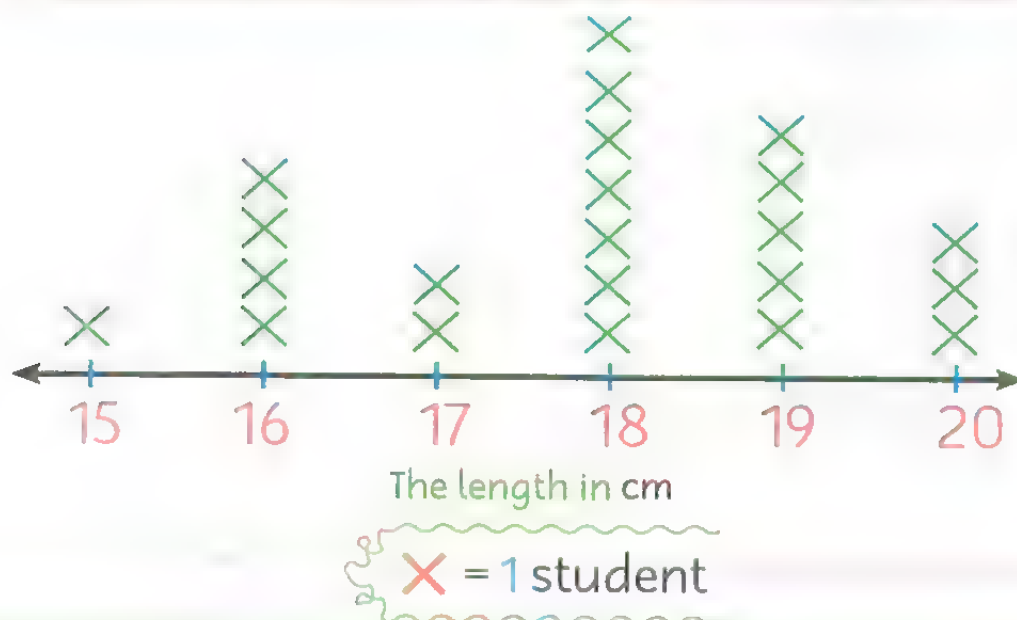
- The length of the blue line = ..... cm
- The length of the red line = ..... cm
- The length of the yellow line = ..... cm
- The length of the green line = ..... cm
- The total length of the blue and yellow lines = ..... cm
- The difference between the lengths of the red and yellow lines = ..... cm
- We need ..... blue lines to be equal to the yellow line.

# Lessons 9,10



Use the line plot that shows the lengths of primary three students' feet in cm. Complete the table, then answer the questions:

The length of feet of primary three students



Length in centimeters	15	16	17	18	19	20
No. of students						

- How long are the feet of most students?.....
- How long are the feet of the least students?.....
- How many students that have feet length of 16 cm?.....
- What are the two lengths that have the total number of 12 students?.....
- What's the difference between students with the greatest and the least length of feet?

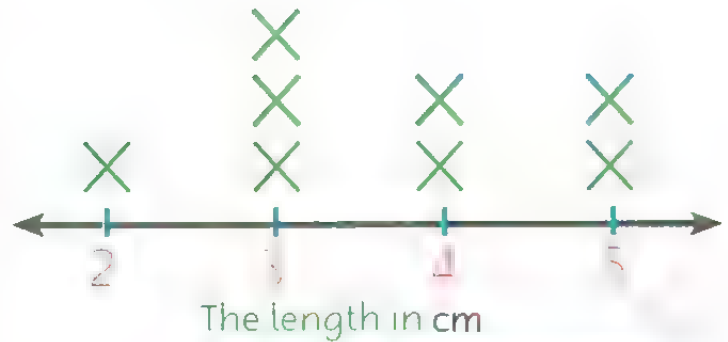


6 Notice the line plot, then answer:



## The length of sticks

- How many sticks that have a length of 4 cm?  
No. of sticks = .....
- No. of sticks with the greatest length = .....
- No. of sticks with the least length = .....



Key  $\times = 2$  sticks

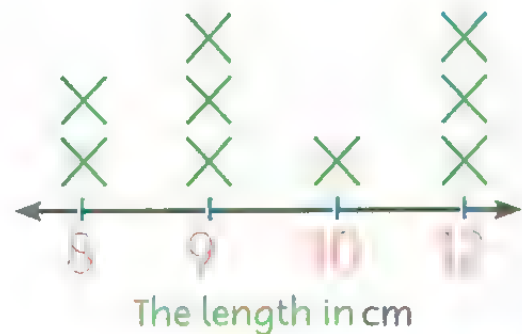


7 Use the line plot to answer the questions:



## The length of wings

- How many wings that have a length of 12 cm?  
No. of wings = ..... wings
- No. of wings with the greatest length = .....
- No. of wings with the least length = .....



Key  $\times = 3$  wings



Circle the figure that comes next:



Extend the pattern:



Find the pattern rule, then complete:

- 3 , 6 , 9 , , , ,
- 23 , 20 , 17 , , , ,
- 25 , 30 , 35 , , , ,
- 87 , 77 , 67 , , , ,
- 37 , 47 , 57 , , , ,
- 12 , 20 , 28 , , , ,



This is a survey about favorite fruit. Make a tally table, then use it to color the bar graph:

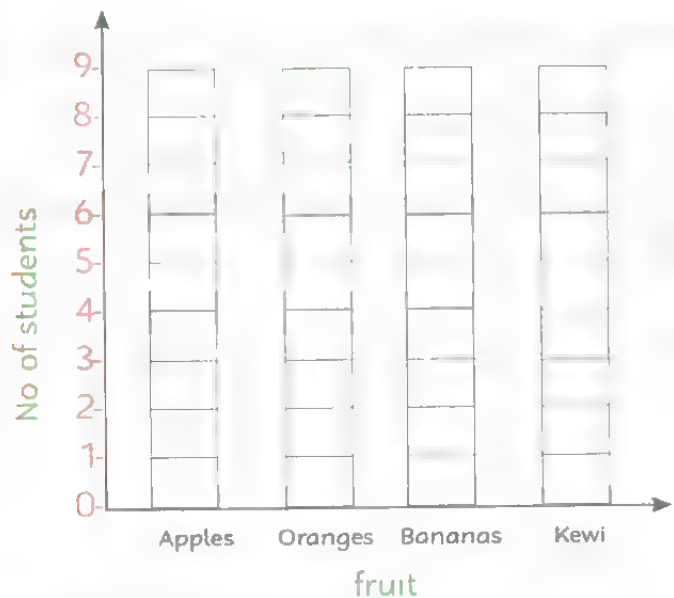
apple  
orange  
apple  
banana  
banana  
orange

banana  
apple  
apple  
banana  
apples  
orange

apple  
kewi  
orange  
apple  
orange  
kewi



Fruits	Tallies	Number
Apples		
Oranges		
Bananas		
Kewi		



- 1 What is the most favorite fruit? .....
- 2 What is the least favorite fruit? .....
- 3 Arrange the fruit according to the number of students ascendingly.  
.....

## Review



5 Use the pictograph to complete the table of tally marks, then answer:



- 1 How many students who play football? .....
- 2 Which sport played by 4 students? .....
- 3 How many more students who prefer football than table tennis? .....



6 Use the data in the table to create a line plot:

**No. of books**   **No. of students**

2	8
3	6
4	5
5	4
6	1

**Books read that day**

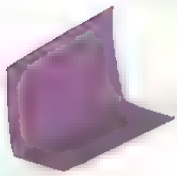


**Key** Each X = 1 student

- 1 No. of students who read 3 books = .....
- 2 The total number of students who read 4 and 5 books = .....



7 Circle the suitable unit for measuring lengths of the following:



cm

m



cm

m



cm

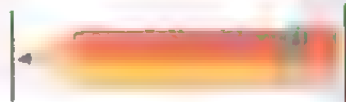
mm



8 Use the ruler to measure the lengths of the following objects:



..... mm



..... cm



..... mm



9 Complete:

1 meter = ..... centimeters

30 centimeters = ..... millimeters

100 millimeters = ..... centimeters

400 centimeters = ..... meter

400 millimeters = ..... centimeters

12 centimeters = ..... millimeters

5 meters = ..... centimeters

80 centimeters = ..... millimeters



# Chapter Two



- Lesson (11) Thousands
- Lessons (12,13) Ten thousands
- Lesson (14) Hundred thousands
- Lessons (15,16) Arrays
- Lessons (17,18) Multiplication
- Lessons (19,20) Commutative property of multiplication

# Chapter Two: Unit Collections

## Lesson (11)

- Explain how value of a digit can change based on its place value.
- Apply strategic thinking to construct a four-digit number with a high value.

## Lessons (12,13)

- Read and write numbers up to Thousands place in a standard form. - Compare numbers using symbols
- Read and write numbers up to the Thousands place in expanded form.
- Read and write numbers up to the Hundred Thousands place.
- Create visual models of numerical value.
- Compare and order numbers up to the Hundred Thousands place.

## Lesson (14)

- Skip count by 2s 5s or 10s - Read and write numbers up to the Hundred Thousands in standard form.
- Read and write numbers up to the Hundred Thousands in standard and expanded forms.
- Order a set of numbers up to the Hundred Thousands place.

## Lessons (15,16)

- Identify and practise strategies for counting sets of objects.
- Explain the strategies they used to calculate the total number of items in an array.
- Use a variety of strategies to calculate the total number of items in an array.

## Lessons (17,18)

- Skip count by (3s). - Compare arrays to equal groups.
- Use drawing arrays, equations and physical models to solve repeated addition and multiplication problems.
- Express repeated addition problems as multiplication problems.
- Explain how repeated addition and multiplication equations are related.
- Compare numbers using symbols - Explain products of whole numbers.
- Compare two products using greater than, less than, and equal to symbols.

## Lessons (19,20)

- Solve multiplication problems using arrays.
- Create arrays to model the commutative property of multiplication.
- Investigate commutative property of multiplication using arrays.
- Explain multiplication and the commutative property of multiplication.
- Think strategically to solve a mathematical problem. - Use arrays to solve a real-world problem.

Chapter (2)  
Lesson  
(11)

# Thousands

The smallest 4-digit number is (1000)

$$999 + 1 = 1000$$



One Thousand

One Hundred

One Ten

One

1000 = 10 Hundreds

100 = 10 Tens

10 = 10 Ones

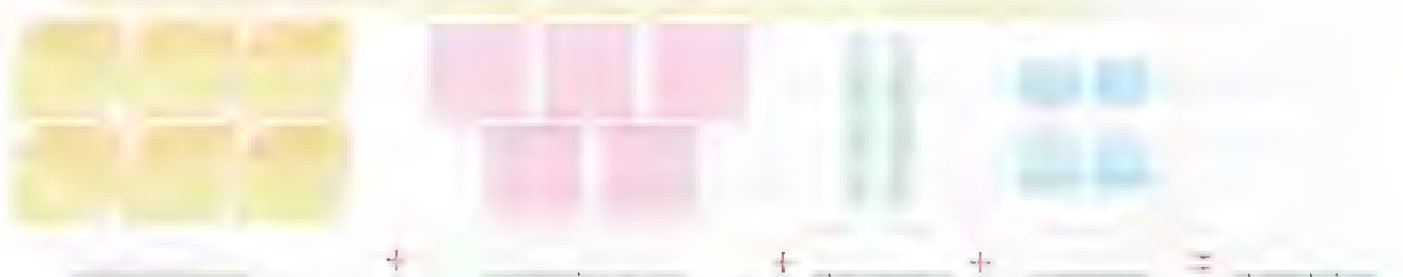
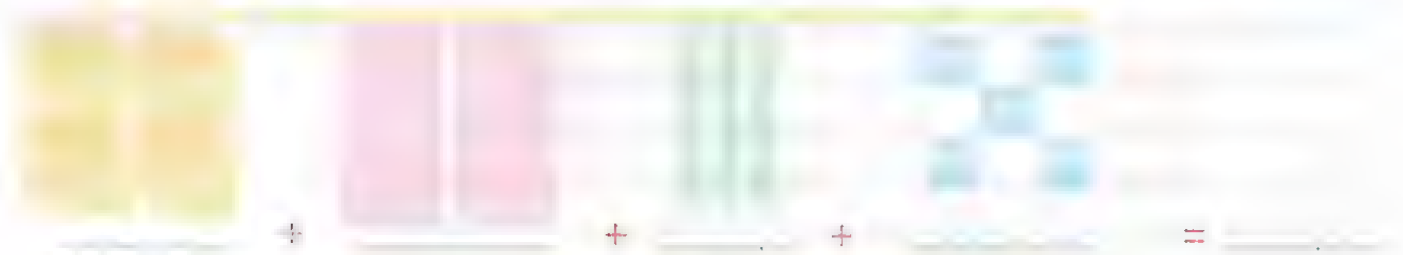
= 100 Tens = 1000 Ones

= 100 Ones



Write the number as the example:

$$2000 + 200 + 40 + 3 = 2243$$



## Notice and learn



Number = 7435

Thousands	Hundreds	Tens	Ones
7	4	3	5

7 Thousands, 4 Hundreds, 3 Tens, 5 Ones

$$7000 + 400 + 30 + 5 = 7435$$

It's read seven thousand, four hundred, thirty-five



1 Write the place value for the digit in red.

Number	Place value
3694	
7242	
3753	

Number	Place value
7945	
2321	
1972	



2 Write the value for the digit in red.

Number	Value
2615	
6735	
9127	
2137	

Number	Value
1921	
3645	
2132	
9142	





# Lesson 11

3 Complete the table:

Number	Thousands	Hundreds	Tens	Ones
3765				
6517				
9475				
	2	5	4	6
	5	2	0	3
	8	6	7	2

4 Write in expanded form as the example:

$$4562 = 4000 + 500 + 60 + 2$$

$$9412 = \underline{\hspace{2cm}} + \underline{\hspace{2cm}} + \underline{\hspace{2cm}} + \underline{\hspace{2cm}}$$

$$5041 = \underline{\hspace{2cm}} + \underline{\hspace{2cm}} + \underline{\hspace{2cm}} + \underline{\hspace{2cm}}$$

$$7002 = \underline{\hspace{2cm}} + \underline{\hspace{2cm}} + \underline{\hspace{2cm}} + \underline{\hspace{2cm}}$$

$$6429 = \underline{\hspace{2cm}} + \underline{\hspace{2cm}} + \underline{\hspace{2cm}} + \underline{\hspace{2cm}}$$

$$8975 = \underline{\hspace{2cm}} + \underline{\hspace{2cm}} + \underline{\hspace{2cm}} + \underline{\hspace{2cm}}$$

$$1025 = \underline{\hspace{2cm}} + \underline{\hspace{2cm}} + \underline{\hspace{2cm}} + \underline{\hspace{2cm}}$$





5 Write in standard form as the example:

$$2000 + 300 + 40 + 6$$

$$= 2346$$

$$6000 + 800 + 70 + 2$$

$$=$$

$$8000 + 50 + 4$$

$$=$$

$$8000 + 400 + 10 + 9$$

$$=$$

$$4000 + 60$$

$$=$$

$$3000 + 700 + 5$$

$$=$$

$$3000 + 800 + 90 + 9$$

$$=$$



6 Complete as the example:

3475 = 3 Thousands, 4 Hundreds, 7 Tens, 5 Ones.

9632 = .....Thousands, ..... Hundreds, .....Tens ..... Ones.

..... / Thousands, 5 Hundreds, 4 Tens, 6 Ones.

..... : 9 Thousands, 6 Tens, 8 Ones.

..... = 8 Thousands, 6 Ones.

..... 9 Thousands, 8 Tens.



## Lesson 11



Compare using ( $>$ ,  $<$  or  $=$ ):

999



1111

3907



7907

9 + 4 + 2 + 1



9421

6 Thousands



607

8000 + 900 + 80 + 6



8986

3 Thousands,  
9 Hundreds



3009

725 + 6000



6275

10 Hundreds



1 + 999



Create the greatest and smallest number as the example:

Digits

The greatest number

The smallest number

9, 0, 1, 2

9210

1029

4, 9, 7, 8

6, 1, 8, 7

4, 7, 9, 5

6, 8, 7, 4

1, 3, 2, 5

4, 0, 2, 3

8, 0, 2, 6



Arrange the following numbers ascendingly:

6589 , 6889 , 6599 , 6879

The order is: ..... , ..... , ..... , ..... .

1111 , 1011 , 1001 , 4167

The order is: ..... , ..... , ..... , ..... .

6589 , 2819 , 2612 , 345

The order is: ..... , ..... , ..... , ..... .

7512 , 5721 , 7002 , 2007

The order is: ..... , ..... , ..... , ..... .



Arrange the following numbers descendingly:

9865 , 9868 , 9965 , 9786

The order is: ..... , ..... , ..... , ..... .

3601 , 3061 , 3160 , 3116

The order is: ..... , ..... , ..... , ..... .

1429 , 5136 , 3244 , 4168

The order is: ..... , ..... , ..... , ..... .

6415 , 4615 , 5216 , 6125

The order is: ..... , ..... , ..... , ..... .





# Lesson 11



Write the number in **word** form as the example:

1 8615 Eight thousand, six hundred fifteen

2 6932 .....

3 4667 .....

4 8916 .....

5 2315 .....

6 3212 .....



Write the number in **standard form** as the example:

1 Four thousand, eight hundred fifteen 4915

2 Six thousand, four hundred twenty .....

3 Eight thousand, nine hundred fifty-four .....

4 Six thousand, five hundred twenty-nine .....

5 Nine thousand, six hundred sixty-three .....

6 Five thousand, four hundred .....



Complete as the example:

5000 - 5 Thousands

5000 ..... Hundreds

5000 ..... Tens

3000 ..... Thousands

90 Tens ..... Hundreds

70 Hundreds ..... Tens



# Ten thousands

## Chapter (2)

### Lessons

(12,13)

(10000) is the smallest 5-digit number

Number = 89456

Ten thousands	Thousands	Hundreds	Tens	Ones
8	9	4	5	6

8 Ten thousands    9 Thousands    4 hundreds    5 Tens    6 Ones  
 $80000 + 9000 + 400 + 50 + 6$

It is read eighty nine thousand, four hundred fifty-six



Write the place value for the digit in red:

Number	Place value	Number	Place value
23532		18452	
76287		36715	
45632		98526	



Write the value for the digit in red:

Number	Value	Number	Value
53217		32708	
87975		75432	
65432		67315	
89652		81542	



# Lessons 12, 13



Complete the table:

Number	Ten thousands	Thousands	Hundreds	Tens	Ones
45652					
38217					
56825					
	7	8	2	0	4
	2	9	5	0	4
	3	7	2	5	3



Write in expanded form for the following numbers as the example:

$$53216 = 50000 + 3000 + 200 + 10 + 6$$

$$32657 = \underline{\hspace{2cm}} + \underline{\hspace{2cm}} + \underline{\hspace{2cm}} + \underline{\hspace{2cm}} + \underline{\hspace{2cm}}$$

$$97174 = \underline{\hspace{2cm}} + \underline{\hspace{2cm}} + \underline{\hspace{2cm}} + \underline{\hspace{2cm}} + \underline{\hspace{2cm}}$$

$$84287 = \underline{\hspace{2cm}} + \underline{\hspace{2cm}} + \underline{\hspace{2cm}} + \underline{\hspace{2cm}} + \underline{\hspace{2cm}}$$

$$56002 = \underline{\hspace{2cm}} + \underline{\hspace{2cm}} + \underline{\hspace{2cm}} + \underline{\hspace{2cm}} + \underline{\hspace{2cm}}$$

$$78420 = \underline{\hspace{2cm}} + \underline{\hspace{2cm}} + \underline{\hspace{2cm}} + \underline{\hspace{2cm}} + \underline{\hspace{2cm}}$$

$$10275 = \underline{\hspace{2cm}} + \underline{\hspace{2cm}} + \underline{\hspace{2cm}} + \underline{\hspace{2cm}} + \underline{\hspace{2cm}}$$



5 Write the number in standard form as the example:

$$20000 + 5000 + 400 + 70 + 3$$

$$= 25473$$

$$90000 + 6000 + 300 + 80 + 6$$

$$=$$

$$80000 + 6000 + 50 + 2$$

$$=$$

$$70000 + 40 + 7$$

$$=$$

$$60000 + 4000 + 700 + 5$$

$$=$$

$$40000 + 500 + 60 + 8$$

$$=$$

$$30000 + 1000 + 10 + 8$$

$$=$$



6 Complete as the example:

65431 = 6 Ten thousands, 5 Thousands, 4 Hundreds, 3 Tens, 1 Ones

48652 = ..... Ten thousands, ..... Thousands, ..... Hundreds, ..... Tens, ..... Ones

59387 = ..... Ten thousands, ..... Thousands, ..... Hundreds, ..... Tens, ..... Ones

..... = 7 Ten thousands, 5 Thousands, 6 Tens, 8 Ones

..... = 4 Ten thousands, 7 Thousands, 8 Tens

..... = 7 Ten thousands, 6 Tens, 2 Ones

..... = 7 Ten thousands, 9 Hundreds

..... = 9 Thousands, 9 Ones



I can write numbers in the expanded, standard and word forms.



## Lessons 12, 13



Compare using ( $>$ ,  $<$  or  $=$ ):

4732

40732

97425

96425

75652

75562

256

48256

37405

50473

91457

9145

34000 600 80 7

34687

62675

62657



Create the greatest and the smallest number as the example:

Example	The greatest number and the smallest number	
9, 5, 4, 6, 3	96543	34569
7, 1, 6, 3, 8		
8, 4, 6, 5, 2		
5, 4, 2, 7, 3		
2, 6, 4, 2, 5		
2, 3, 1, 4, 6		
3, 4, 7, 9, 0		
4, 6, 1, 2, 8		
9, 8, 7, 5, 6		





Arrange the following numbers ascendingly:

24652 , 38602 , 52565 , 47625

The order is: ....., ....., ....., .....

13725 , 11025 , 1005 , 13275

The order is: ....., ....., ....., .....

34852 , 43258 , 85342 , 58432

The order is: ....., ....., ....., .....

34852 , 62825 , 82562 , 62715

The order is: ....., ....., ....., .....



Arrange the following numbers descendingly:

25137 , 25011 , 50012 , 32178

The order is: ....., ....., ....., .....

25682 , 28256 , 25862 , 28625

The order is: ....., ....., ....., .....

53227 , 15276 , 35227 , 15726

The order is: ....., ....., ....., .....

79415 , 53297 , 2462 , 24625

The order is: ....., ....., ....., .....



## Lessons 12, 13



Write the numbers in word form as the example:

1 28415 Twenty eight thousand, four hundred fifteen

2 96824 .....

3 58479 .....

4 36253 .....

5 79468 .....

6 14695 .....

7 12005 .....



Write the number in standard form as the example:

1 Twenty-seven thousand, five hundred twenty-four 27524

2 Fifty-eight thousand, four hundred fifty-three .....

3 Sixty-five thousand, nine hundred sixty-four .....

4 Sixty-seven thousand, nine hundred sixty-four .....

5 Ninety thousand, six hundred fourteen = .....

6 Forty-five thousand, nine hundred five .....

7 Thirty-four thousand, two hundred forty-nine .....

8 Forty-eight thousand, eighty .....

Chapter (1)  
Lesson  
(14)

Notice  
and  
learn

$$99999 + 1 = 100000$$

(100000) is the smallest 6-digit number

453276

Hundred Thousands	Ten thousands	Thousands	Hundreds	Tens	Ones
4	5	3	2	7	6

1. Hundred thousands, 5. Ten thousands, 3. Thousands,  
2. Hundreds, 7. Tens and 6. Ones

$$400000 + 50000 + 3000 + 200 + 70 + 6$$

It is read Four hundred fifty-three thousand, two hundred seventy-six.



1. Write the place value for the digit 5 in each number:

Number	Place value	Number	Place value
352673		167352	
613546		523463	
149635		765984	



2. Write the value for the digit 7 in each number:

Number	Value	Number	Value
752693		271549	
327142		562714	
135273		256417	



I learnt to read a 6-digit numbers.



## Lesson 14



Complete the table as the example:

Number	Hundred thousands	Ten thousands	Thousands	Hundred	Ten	ones
645327	6	4	5	3	2	7
68328						
324217						
778359						
40053						
3524						
600006						



Complete the table as the example:

Number	Hundred thousands	Ten thousands	Thousands	Hundreds	Tens	One					
264531	2	6	4	5	3	1					
	200000	+	60000	+	4000	+	500	+	30	+	1
570432											
		+		+		+		+		+	
689543											
		+		+		+		+		+	
478051											
		+		+		+		+		+	



5 Write the number in **standard** form as the example:

$$300000 + 20000 + 5000 + 400 + 80 + 6$$

$$= 325486$$

$$500000 + 30000 + 2000 + 500 + 70 + 5$$

$$=$$

$$600000 + 70000 + 3000 + 100 + 40 + 7$$

$$=$$

$$800000 + 10000 + 6000 + 400 + 90 + 8$$

$$=$$

$$30000 + 1000 + 600 + 10 + 9$$

$$=$$

$$70000 + 4000 + 700 + 30 + 4$$

$$=$$

$$700000 + 8000 + 500 + 50 + 5$$

$$=$$

$$900000 + 7000 + 900 + 70 + 7$$

$$=$$

$$400000 + 4000 + 400 + 90 + 8$$

$$=$$



6 Write the following number in **expanded** form as the example:

$$62319 = 60000 + 2000 + 300 + 10 + 9$$

$$495732 = \dots + \dots + \dots + \dots + \dots + \dots$$

$$79035 = \dots + \dots + \dots + \dots + \dots$$

$$43212 = \dots + \dots + \dots + \dots + \dots$$

$$398475 = \dots + \dots + \dots + \dots + \dots + \dots$$

$$864231 = \dots + \dots + \dots + \dots + \dots + \dots$$



# Lesson 14



Compare using ( $>$ ,  $<$  or  $=$ ):

376257

385672

625916

625000 + 916

679872

534782

452138

452000 + 318

287328

287300 + 18

7000 + 500 + 30 + 2

7532

Fifty-four thousand, Three hundred nine

900354

Twenty-four thousand, five hundred eight

524800



Create the greatest and the smallest digit number:

Digits	The greatest number	The smallest number
9, 5, 3, 7, 2, 6		
8, 9, 0, 3, 0, 1		
7, 9, 0, 3, 5, 2		
5, 9, 2, 3, 7, 4		
2, 3, 1, 7, 8, 5		
1, 4, 5, 3, 7, 2		
9, 5, 6, 3, 0, 1		





Arrange the following numbers ascendingly:

26875 , 268752 , 267852 , 265872

The order is: .....

625816 , 625186 , 625168 , 625618

The order is: .....

472815 , 742835 , 472185 , 742581

The order is: .....

984716 , 984176 , 897416 , 987416

The order is: .....



Arrange the following numbers descendingly:

285619 , 285916 , 825691 , 825961

The order is: .....

567413 , 567143 , 486243 , 684243

The order is: .....

162786 , 162687 , 687261 , 687621

The order is: .....



Write in word form:

1 672563 .....

2 847275 .....

3 728023 .....





## Lesson 14

12 Write in standard form:

- 1 Seven hundred ninety-five thousand, four hundred ninety-five = \_\_\_\_\_
- 2 Nine hundred thirty-six thousand, six hundred thirty-four = \_\_\_\_\_
- 3 Five hundred forty thousand = \_\_\_\_\_
- 4 Nine hundred eighty thousand, five = \_\_\_\_\_
- 5 Eight hundred forty thousand, eighty-nine = \_\_\_\_\_

13 Skip count by (2s):

- 1 2, 4, 6, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_
- 2 6, 8, 10, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_
- 3 10, 12, 14, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_
- 4 14, 16, 18, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_

14 Skip count by (5s):

- 1 5, 10, 15, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_
- 2 15, 20, 25, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_
- 3 20, 25, 30, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_
- 4 30, 35, 40, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_

15 Skip count by (10s):

- 1 10, 20, 30, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_
- 2 30, 40, 50, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_
- 3 20, 30, 40, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_
- 4 50, 60, 70, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_

Chapter (2)  
Lessons  
(15,16)

# Arrays



The array: is ordered objects in rows and columns.

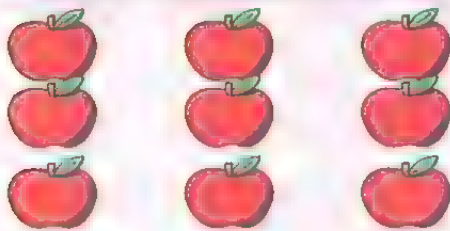
Column(vertical)



Row(horizontal) →



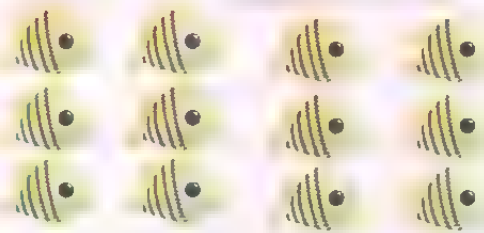
Complete as the example:



No. of rows = 3

No. of columns = 3

Th array :  $3 \times 3$



No. of rows = .....

No. of columns = .....

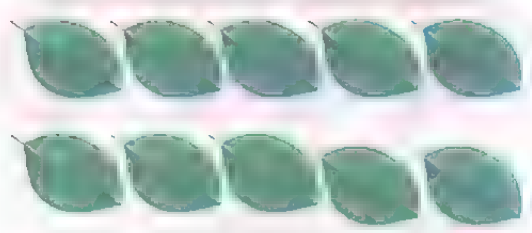
Th array: .....  $\times$  .....



No. of rows = .....

No. of columns = .....

Th array: .....  $\times$  .....



No. of rows = .....

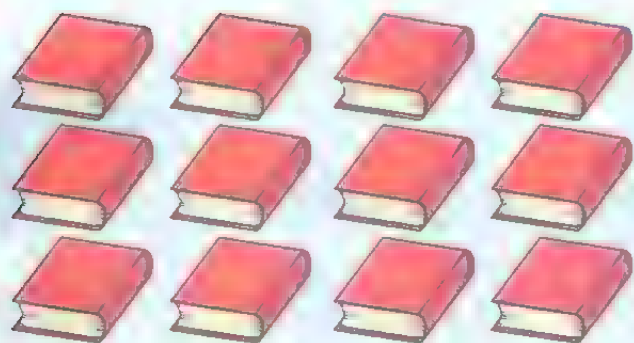
No. of columns = .....

Th array: .....  $\times$  .....



I learnt the array.

## Finding the total sum of the array using rows



No. of rows = 3

No. of columns = 4

The array :  $3 \times 4$

The total sum =  $4+4+4=12$



Complete as the example:



No. of rows = .....

No. of columns = .....

The array : .....  $\times$  .....

The total sum = ..... + ..... = .....

..... + ..... = .....



No. of rows = .....

No. of columns = .....

The array : .....  $\times$  .....

The total sum = ..... + ..... = .....

..... + ..... = .....



No. of rows = .....

No. of columns = .....

The array : .....  $\times$  .....

The total sum = ..... + ..... = .....

..... + ..... = .....



No. of rows = .....

No. of columns = .....

The array : .....  $\times$  .....

The total sum = ..... + ..... = .....

..... + ..... = .....



# Finding the total sum of the array using columns

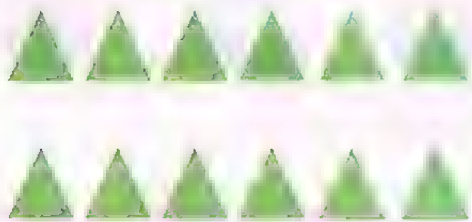


Complete as the example:



The total sum

$$\begin{array}{r} 3 + 3 + 3 \\ 3 \times 3 = 9 \end{array}$$



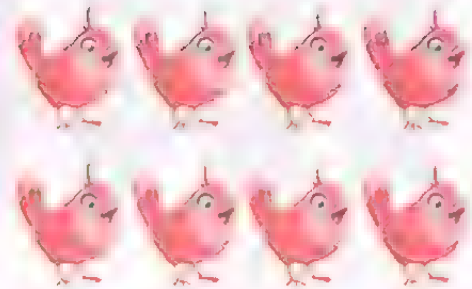
The total sum

$$\begin{array}{r} + + + + + + \\ \times = \end{array}$$



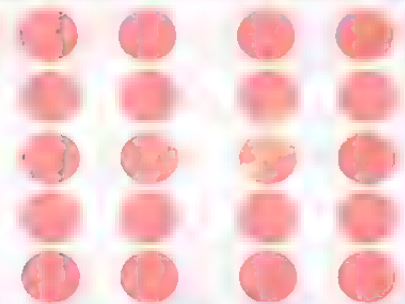
The total sum

$$\begin{array}{r} + + \\ \times = \end{array}$$



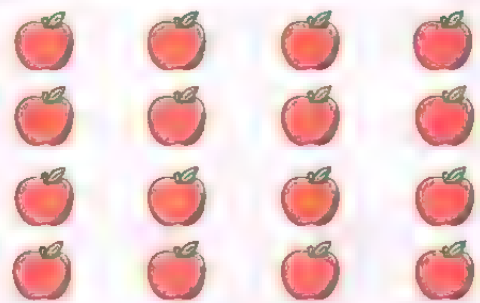
The total sum

$$\begin{array}{r} + + + + \\ \times = \end{array}$$



The total sum

$$\begin{array}{r} + + + + \\ \times = \end{array}$$



The total sum

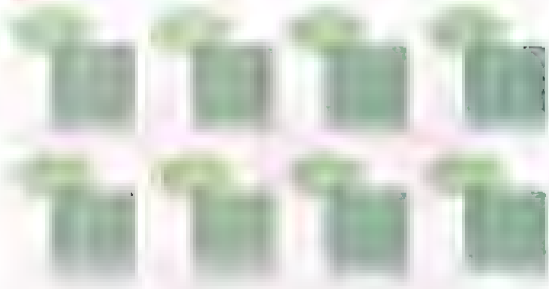
$$\begin{array}{r} + + + + \\ \times = \end{array}$$



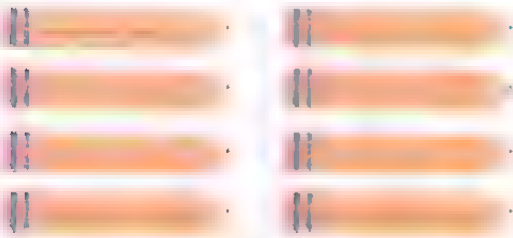
# Lessons 15,16



Complete:



The total sum = .....



The total sum = .....



The total sum = .....



The total sum = .....



The total sum = .....



The total sum = .....



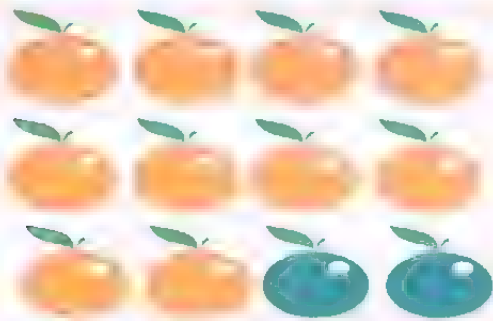
The total sum = .....



The total sum = .....



Complete the non-array to get an array as the example:



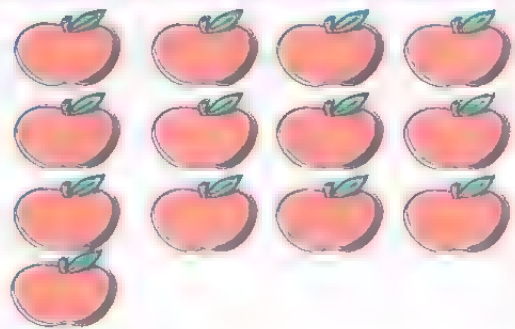
No. of rows = 3 rows  
No. of columns = 4 columns  
The total =  $3 \times 4 = 12$



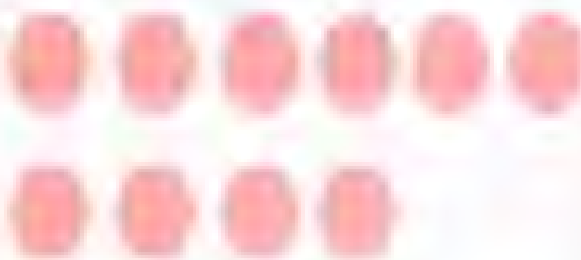
No. of rows = .....  
No. of columns = .....  
The total = .....  $\times$  ..... = .....



No. of rows = .....  
No. of columns = .....  
The total = .....  $\times$  ..... = .....



No. of rows = .....  
No. of columns = .....  
The Total = .....  $\times$  ..... = .....



No. of rows = .....  
No. of columns = .....  
The total = .....  $\times$  ..... = .....



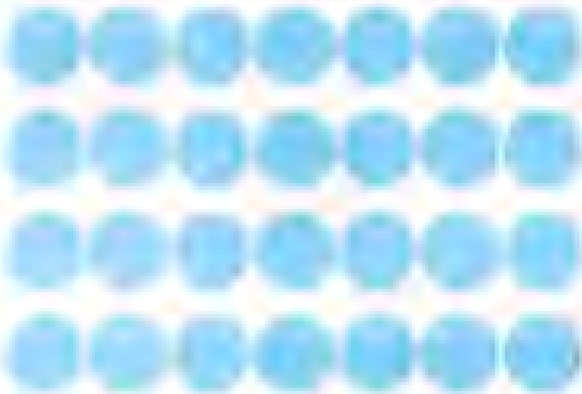
No. of rows = .....  
No. of columns = .....  
The total = .....  $\times$  ..... = .....

## Lessons 15, 16



Draw arrays as required as the example:

$$4 \times 7$$



$$4 \times 3$$

$$4 \times 5$$

$$3 \times 6$$

$$4 \times 4$$

$$3 \times 3$$



Chapter (2)  
Lessons  
(17,18)

# Multiplication



Addition sentence  $3 + 3 + 3 + 3 = 12$

Multiplication sentence  $4 \times 3 = 12$



Complete as the example:



Addition sentence ..... + ..... + ..... + .....

Multiplication sentence

.....  $\times$  ..... = .....



Addition sentence ..... + ..... + ..... + .....

Multiplication sentence

.....  $\times$  ..... = .....



Addition sentence ..... + ..... + .....

Multiplication sentence

.....  $\times$  ..... = .....



Addition sentence ..... + .....

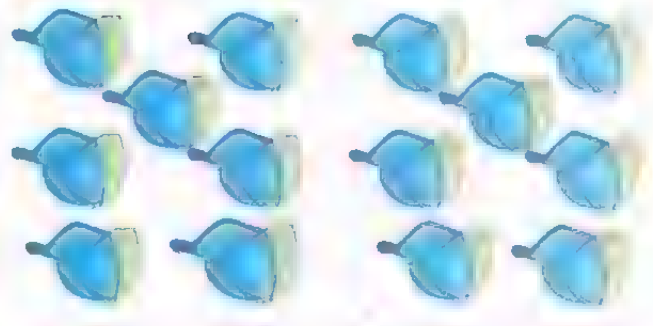
Multiplication sentence

.....  $\times$  ..... = .....

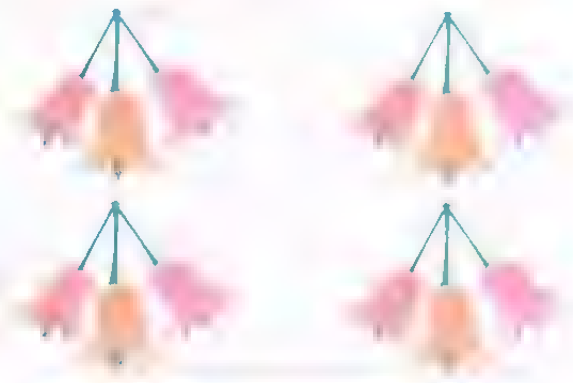




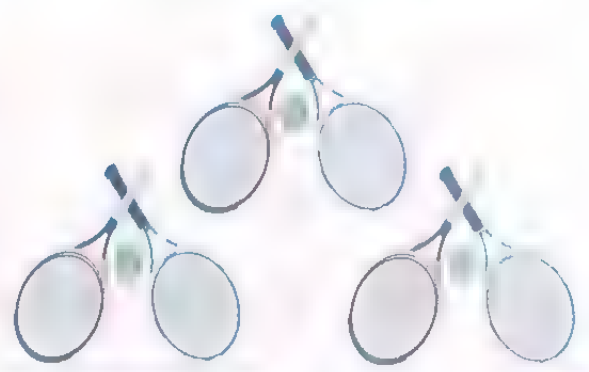
$$\begin{array}{c} \text{.....} \times \text{.....} \\ \hline \text{.....} = \text{.....} + \text{.....} \end{array}$$



$$\begin{array}{c} \text{.....} - \text{.....} \times \text{.....} \\ \hline \text{.....} = \text{.....} + \text{.....} + \text{.....} \end{array}$$



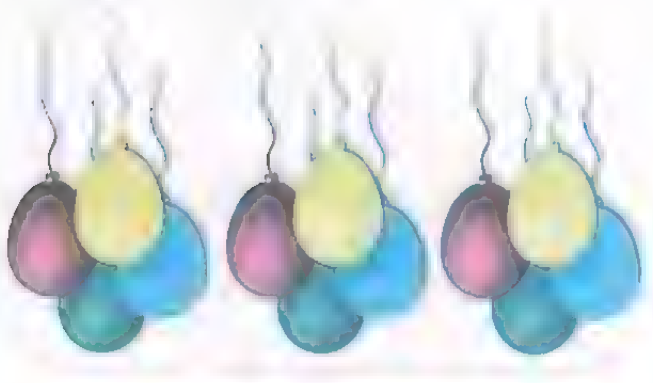
$$\begin{array}{c} \text{.....} - \text{.....} \times \text{.....} \\ \hline \text{.....} = \text{.....} + \text{.....} + \text{.....} \end{array}$$



$$\begin{array}{c} \text{.....} \times \text{.....} \\ \hline \text{.....} = \text{.....} + \text{.....} \end{array}$$



$$\begin{array}{c} \text{.....} \times \text{.....} \\ \hline \text{.....} = \text{.....} + \text{.....} + \text{.....} \end{array}$$



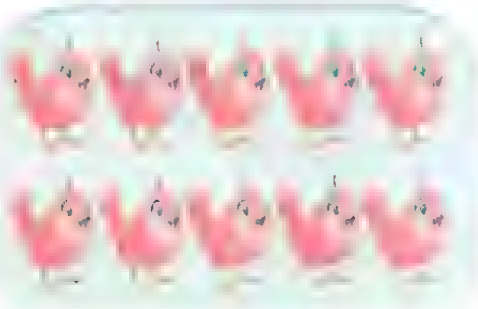
$$\begin{array}{c} \text{.....} \times \text{.....} \\ \hline \text{.....} = \text{.....} + \text{.....} + \text{.....} + \text{.....} + \text{.....} \end{array}$$



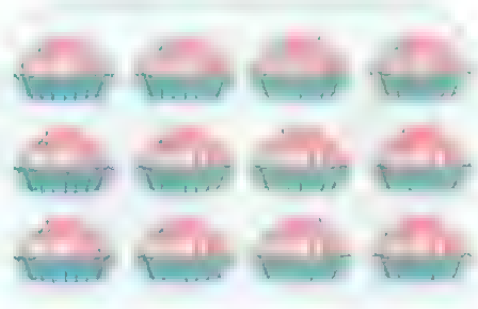
Complete:



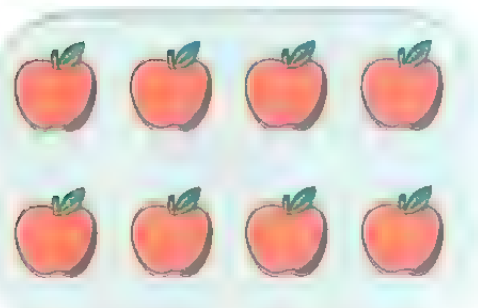
Write the multiplication sentence for the following:



$$\dots \times \dots = \dots$$



$$\dots \times \dots = \dots$$



$$\dots \times \dots = \dots$$



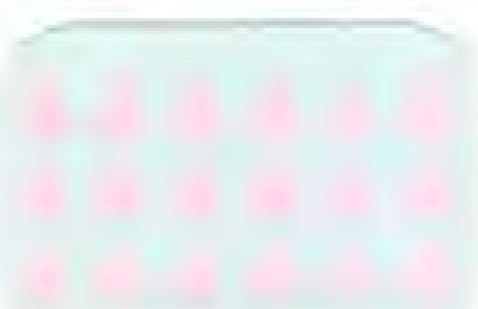
$$\dots \times \dots = \dots$$



$$\dots \times \dots = \dots$$



$$\dots \times \dots = \dots$$



$$\dots \times \dots = \dots$$



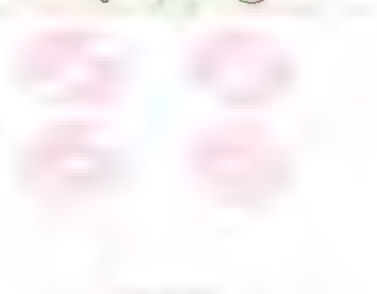
$$\dots \times \dots = \dots$$

# Lessons 17, 18

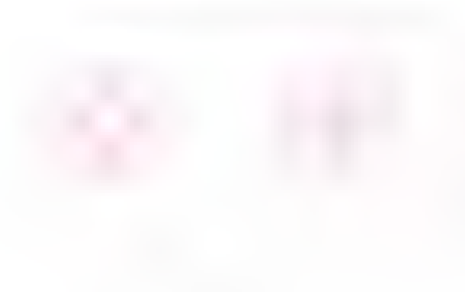


4 Tick (✓) below the picture that represents the right multiplication product:

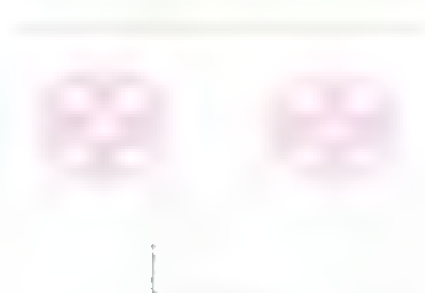
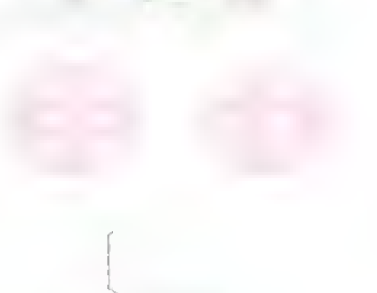
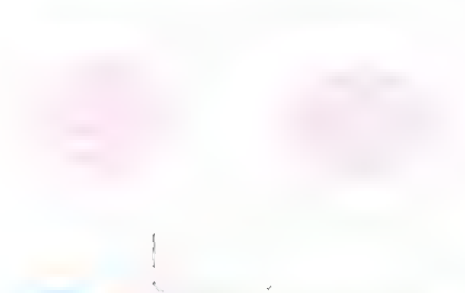
$$4 \times 3$$



$$3 \times 5$$



$$2 \times 6$$

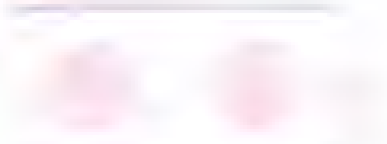


6 Complete as the example:

1	10 +	10 +	10 +	10	=	10	×	4
2	6 +	6			=	.....	×	.....
3	4 +	4 +	4 +	4	=	.....	×	.....
4	5 +	5 +	5		=	.....	×	.....
5	3 +	3 +	3 +	3	=	.....	×	.....
6	2 +	2 +	2 +	2 + 2	=	.....	×	.....
7	8 +	8 +	8 +	8	=	.....	×	.....
8	7 +	7 +	7 +	7 + 7	=	.....	×	.....



Match each set to the suitable array:



Complete as the example:

$$1 \quad 3 \times 7 = \dots 7 \dots + \dots 7 \dots + \dots 7 \dots \quad = \dots 21 \dots$$

$$2 \quad 4 \times 5 = \dots + \dots + \dots + \dots \quad = \dots$$

$$3 \quad 5 \times 2 = \dots + \dots + \dots + \dots + \dots \quad = \dots$$

$$4 \quad 3 \times 9 = \dots + \dots + \dots \quad = \dots$$

$$5 \quad 4 \times 4 = \dots + \dots + \dots + \dots \quad = \dots$$

$$6 \quad 3 \times 8 = \dots + \dots + \dots \quad = \dots$$



## Chapter ( ) Lessons (19, 20)



$$4 \times 3 = 12$$



$$3 \times 4 = 12$$

**Note:**

$$\text{so, } 4 \times 3 = 3 \times 4 = 12$$

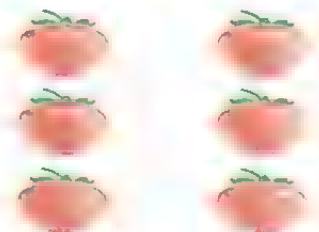
We can multiply the factors in any order and we get the same product.



**Complete:**

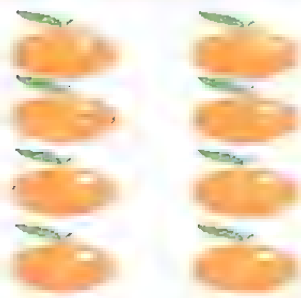


$$2 \times 3 = \dots\dots\dots$$



$$3 \times 2 = \dots\dots\dots$$

so,  $\dots\dots\dots \times \dots\dots\dots = \dots\dots\dots$



$$\dots\dots\dots \times \dots\dots\dots = \dots\dots\dots$$



$$\dots\dots\dots \times \dots\dots\dots = \dots\dots\dots$$

so,  $\dots\dots\dots \times \dots\dots\dots = \dots\dots\dots$





Complete using commutative property:

.....  $\times$  ..... = .....

.....  $\times$  ..... = .....

SO, .....  $\times$  ..... = .....  $\times$  .....

.....  $\times$  ..... = .....

.....  $\times$  ..... = .....

SO, .....  $\times$  ..... = .....  $\times$  .....

.....  $\times$  ..... = .....

.....  $\times$  ..... = .....

SO, .....  $\times$  ..... = .....  $\times$  .....

# Lessons 1930



Complete as the example:

$$3 \times 4 = 4 \times \underline{\hspace{1cm}}$$

$$9 \times \underline{\hspace{1cm}} = 7 \times 9$$

$$8 \times \underline{\hspace{1cm}} = 7 \times 8$$

$$4 \times 2 = \underline{\hspace{1cm}} \times 4$$

$$\underline{\hspace{1cm}} \times 6 = \underline{\hspace{1cm}} \times 7$$

$$\underline{\hspace{1cm}} \times 9 = \underline{\hspace{1cm}} \times 8$$

$$\underline{\hspace{1cm}} \times 3 = \underline{\hspace{1cm}} \times 8$$

$$\underline{\hspace{1cm}} \times 7 = 7 \times 5$$



Match according to commutative property as the example:

$$3 \times 6$$

$$7 \times 4$$

$$5 \times 3$$

$$6 \times 8$$

$$4 \times 3$$

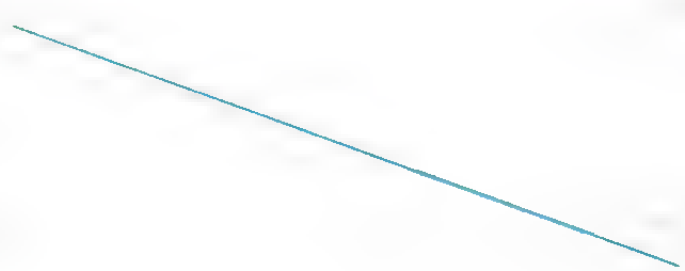
$$8 \times 6$$

$$6 \times 3$$

$$3 \times 4$$

$$3 \times 5$$

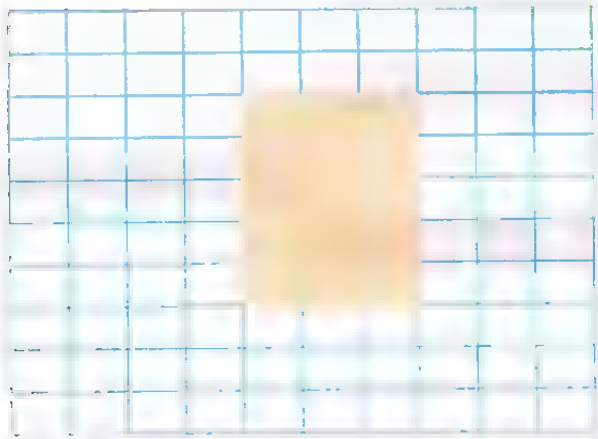
$$4 \times 7$$



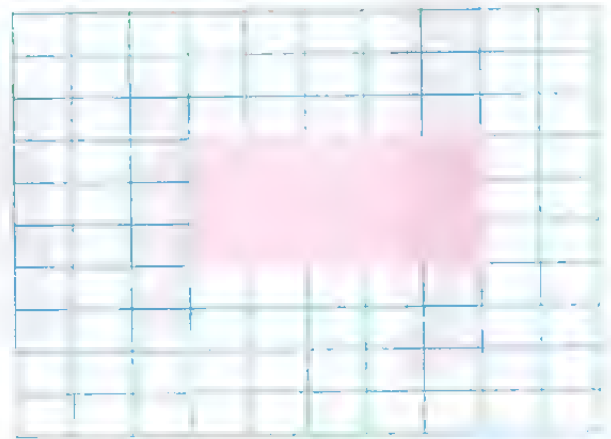


Create arrays representing commutative property, then color as the example:

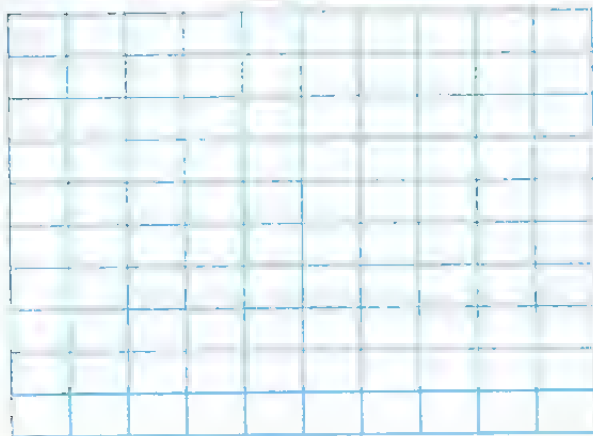
Array  $(5 \times 3)$



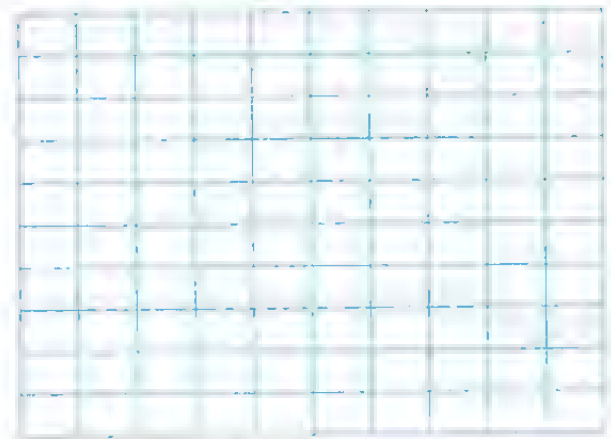
Array  $(3 \times 5)$



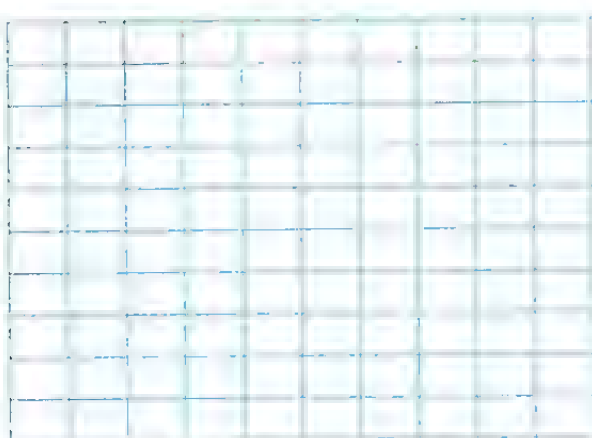
Array  $(4 \times 7)$



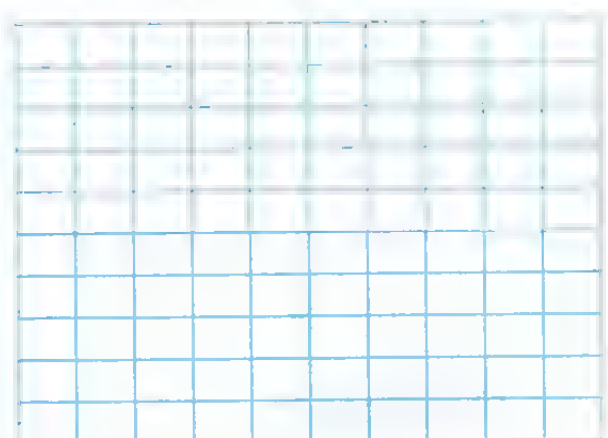
Array  $(7 \times 4)$



Array  $(5 \times 6)$



Array  $(6 \times 5)$





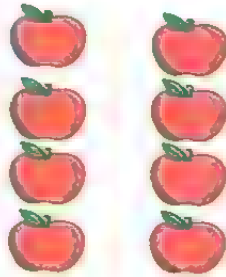
# Lessons 19, 20



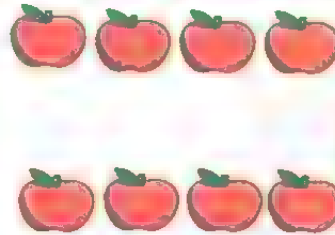
Write the name of each array:



$\times$  \_\_\_\_\_



\_\_\_\_\_  $\times$  \_\_\_\_\_



$\times$  \_\_\_\_\_



$\times$  \_\_\_\_\_

## Note:

We can arrange 8 apples on the shape of different arrays with the same product 8.

**Complete :**

$$1 \times 8 = 8 \times \text{.....} = 8 \quad , \quad 2 \times \text{.....} = 4 \times \text{.....} = 8$$



Draw the different arrays for the number (6).

$$6 \times 1$$

$$1 \times 6$$

$$2 \times 3$$

$$3 \times 2$$

**Complete :**

$$1 \times 6 = 6 \times \text{.....} = 6$$

$$2 \times \text{.....} = 3 \times \text{.....} = 6$$



Draw the array on the grid using the two cards:



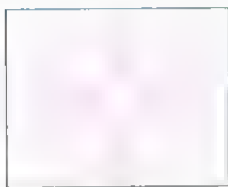
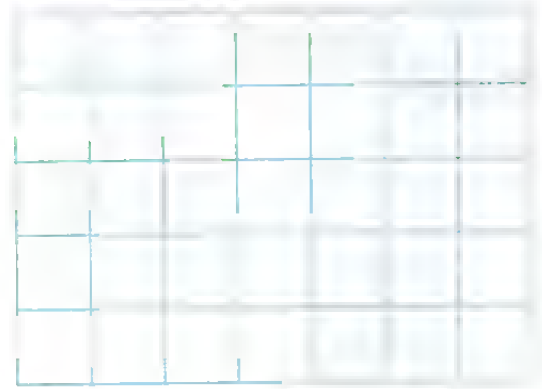
rows



columns

Multiplication equation =

$$\dots \times \dots = \dots$$



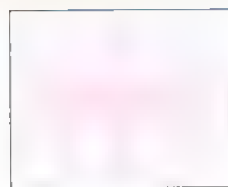
rows



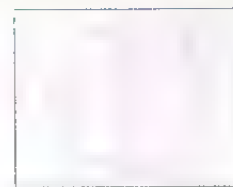
columns

Multiplication equation

$$\dots \times \dots = \dots$$



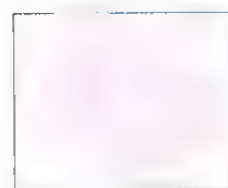
rows



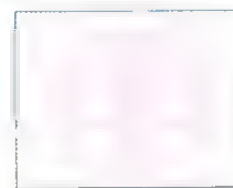
columns

Multiplication equation =

$$\dots \times \dots = \dots$$



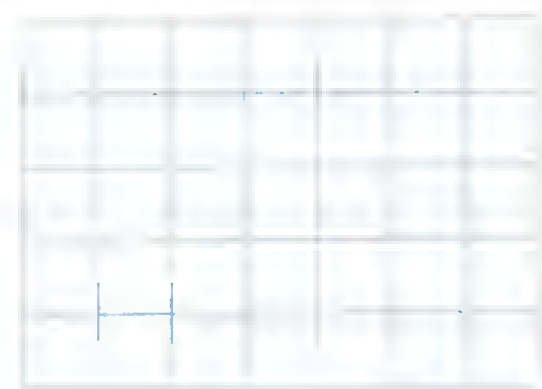
rows



columns

Multiplication equation =

$$\dots \times \dots = \dots$$



# Review on chapter two



Write the place value for the digit in red:

Number	Place value	Number	Place value
3'56		4'6325	
36784		213'1	
934215		34532	



Write the value for the digit in red:

Number	Value	Number	Value
46353		4'321	
32563		16500	
605632		325321	



Write the number in standard form:

- 3 thousands, 7 hundreds, 4 tens, 5 ones \_\_\_\_\_
- 75 thousands, 9 hundreds, 1 tens, 8 ones \_\_\_\_\_
- 175 thousands, 3 hundreds \_\_\_\_\_
- 26 thousands, 8 tens, 7 ones \_\_\_\_\_
- 23 thousands, 7 hundreds \_\_\_\_\_

## 4 Write in expanded form:

$$3425 = \dots + \dots + \dots + \dots$$

$$72314 = \dots + \dots + \dots + \dots + \dots$$

$$596324 = \dots + \dots + \dots + \dots + \dots + \dots$$

## 5 Write in standard form:

$$7000 + 800 + 70 + 4 = \dots$$

$$90000 + 3000 + 700 + 40 + 9 = \dots$$

$$800000 + 70000 + 6000 + 400 + 50 + 1 = \dots$$

## 6 Compare using ( $>$ , $<$ or $=$ ):

5613

5715

75  
thousands

750  
hundreds

54462

11111

13400

13 thousands and 4

534297

534268

26573

26579

808080

808008

78315

78315

23 thousands

23001

99999 - 1

1 hundred  
thousands



## Review



7 Arrange the following numbers ascendingly:

3452 , 43123 , 83517 , 13512

The order is: \_\_\_\_\_ , \_\_\_\_\_ , \_\_\_\_\_ , \_\_\_\_\_

425632 , 99475 , 9999 , 28235

The order is: \_\_\_\_\_ , \_\_\_\_\_ , \_\_\_\_\_ , \_\_\_\_\_

345231 , 344131 , 88888 , 342231

The order is: \_\_\_\_\_ , \_\_\_\_\_ , \_\_\_\_\_ , \_\_\_\_\_

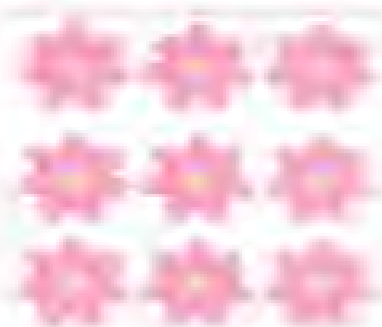


8 Complete:



The total sum \_\_\_\_\_

\_\_\_\_\_ × \_\_\_\_\_ = \_\_\_\_\_



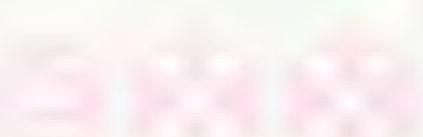
The total sum \_\_\_\_\_ + \_\_\_\_\_ + \_\_\_\_\_

\_\_\_\_\_ × \_\_\_\_\_ = \_\_\_\_\_



The total sum \_\_\_\_\_

\_\_\_\_\_ × \_\_\_\_\_ = \_\_\_\_\_



The total sum \_\_\_\_\_ + \_\_\_\_\_ + \_\_\_\_\_

\_\_\_\_\_ × \_\_\_\_\_ = \_\_\_\_\_

# Chapter Three



Lesson (21, 22)

**Multiplication story problems**

Lessons (23, 24)

**Multiples**

Lesson (25)

**Factor pairs**

Lessons (26, 27)

**Telling time**

Lessons (28, 29)

**Division**

Lesson (30)

**The relation between multiplication and division**

# Chapter Theme Understandings

## Lessons (21, 22)

- Use a variety of strategies to solve multiplication story problems.
- Explain elements of multiplication story problems.
- Write a multiplication story problem that matches a given equation.
- Skip count by 4s.
- Match multiplication equation to story problems.

## Lessons (23, 24)

- Explain the rules of multiplying by 0 and 1.
- Identify common multiples of numbers 2 and 3.
- Predict common multiples of 2 and 3 greater than 120.
- Use evidence to justify and explain mathematical thinking.
- Identify numerical patterns when multiplying by 5 and 10.
- Identify the multiples of 5 and 10.
- Explain the relation between skip counting and multiplication facts.

## Lesson (25)

- Explore the relationship between multiples of 2, 3, and 6.
- Model the commutative property of multiplication using arrays.
- Identify factor pairs using arrays.

## Lessons (26, 27)

- Skip count by 5s.
- Explain the relationship between skip counting by 5s and telling time to 5-minute increments.
- Read and write time in 5-minute increments on an analog clock.
- Use a variety of strategies to tell time to 5-minute increments.
- Analyze and correct incorrect time.

## Lessons (28, 29)

- Use manipulatives to model division.
- Explain the relationship between sharing equally and dividing.
- Use a variety of strategies to solve division problems.
- Explain their thinking when solving division problems.
- Discuss the importance of perseverance.

## Lesson (30)

- Describe the relationship between factors and their product.
- Use the division symbol.
- Apply the relationship between multiplication and division to identify fact families.
- Solve division problems with one unknown value.

Chapter (3)  
Lessons  
(21, 22)

# Multiplication story problems

Farah bought 4 bags of sweets. Each bag contains 5 pieces of sweets.

How many pieces of sweets did Farah buy?

1<sup>st</sup> strategy



$$5 + 5 + 5 + 5 = 20$$

No. of sweet pieces =  $4 \times 5 = 20$  pieces

The repeated addition

2<sup>nd</sup> strategy



No. of sweet pieces =  $4 \times 5 = 20$  pieces

Array

3<sup>rd</sup> strategy

Skip counting



No. of sweet pieces = 20 pieces





## Lessons 21, 22



Find the result using one of the previous strategies:

There are 4 bags of oranges. Each bag has 6 oranges. What is the total number of oranges?

\_\_\_\_\_

\_\_\_\_\_



There are 4 bags of balloons. Each bag has 6 balloons. What is the total number of balloons?

\_\_\_\_\_

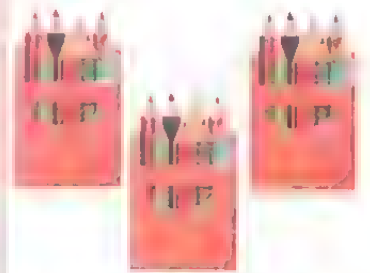
\_\_\_\_\_



There are 3 crayon boxes. Each box has 6 crayons. What is the total number of crayons?

\_\_\_\_\_

\_\_\_\_\_



There are 3 bunches of flowers. Each bunch has 6 flowers. What is the total number of flowers?

\_\_\_\_\_

\_\_\_\_\_



Hasan runs 4 kilometers every day. How many kilometers does Hasan run in 5 days?

\_\_\_\_\_

\_\_\_\_\_





## Lessons 21, 22

2 Match each story problem to the suitable multiplication equation:

Mariam has 4 dresses.  
Each dress has 5 buttons.  
What is the total number  
of buttons?

•  $6 \times 9 = 54$

There are 6 boxes. Each  
box has 7 cartons of  
juice. How many cartons  
of juice are there?

•  $4 \times 7 = 28$

How many days are  
there in 4 weeks?

•  $4 \times 5 = 20$

The butterfly has 6 legs.  
How many legs do  
9 butterflies have?

•  $5 \times 6 = 30$

There are 5 boxes of  
crayons. Each box has  
6 crayons. How many  
crayons are there?

•  $6 \times 7 = 42$





Find the product, write a suitable story problem:

Multiplication equation  $2 \times 6 = \dots\dots\dots$

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Multiplication equation  $5 \times 8 = \dots\dots\dots$

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Multiplication equation  $9 \times 2 = \dots\dots\dots$

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---

Multiplication equation  $5 \times 7 = \dots\dots\dots$

---

---

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## Multiplying by 0 and 1

**Multiplying by 0:**  
When you multiply a number by **zero**, the product is zero.

$$\begin{array}{l} \text{.....} \\ 6 \times 0 = 0 \\ 9 \times 0 = 0 \end{array}$$

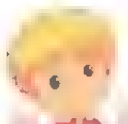
**Multiplying by 1:**  
When you multiply a number by **1**, the product is the same number.

$$\begin{array}{l} \text{.....} \\ 6 \times 1 = 6 \\ 9 \times 1 = 9 \end{array}$$

**1 Complete:**

$$\begin{array}{r} 6 \\ \times 1 \\ \hline \text{.....} \end{array}$$

$$\begin{array}{r} 9 \\ \times 0 \\ \hline \text{.....} \end{array}$$



$$\begin{array}{r} 8 \\ \times 1 \\ \hline \text{.....} \end{array}$$

$$\begin{array}{r} 7 \\ \times 0 \\ \hline \text{.....} \end{array}$$

$$\begin{array}{r} 10 \\ \times 1 \\ \hline \text{.....} \end{array}$$

**2 Complete the table:**

$\times$	1	2	3	4	5	6	7	8	9	10
0	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

**3 Complete the missing number:**

$\text{.....} \times 1 = 5$	$9 \times \text{.....} = 9$	$0 \times 21 = \text{.....}$
$1 \times 9 = \text{.....}$	$15 \times \text{.....} = 15$	$1 \times 45 = \text{.....}$
$254 \times 0 = \text{.....}$	$8 \times 0 = \text{.....}$	$8 \times 1 = \text{.....}$





## Multiples of (2)

$$2 \times 1 = 2$$

$$2 \times 2 = 4$$

$$2 \times 3 = 6$$

$$2 \times 4 = 8$$

$$2 \times 5 = 10$$

$$2 \times 6 = 12$$



$$2 \times 7 = 14$$

$$2 \times 8 = 16$$

$$2 \times 9 = 18$$

$$2 \times 10 = 20$$

$$2 \times 11 = 22$$

$$2 \times 12 = 24$$

1 Match the equal results:

$$3 \times 2$$

$$5 \times 2$$

$$7 \times 2$$

10

12

6

18

14

8

$$9 \times 2$$

$$4 \times 2$$

$$2 \times 6$$

2 Find the product:

$$6 \times 2 = \dots\dots\dots$$

$$7 \times 2 = \dots\dots\dots$$

$$2 \times 3 = \dots\dots\dots$$

$$5 \times 2 = \dots\dots\dots$$

$$4 \times 2 = \dots\dots\dots$$

$$2 \times 8 = \dots\dots\dots$$

$$10 \times 2 = \dots\dots\dots$$

$$9 \times 2 = \dots\dots\dots$$

3 Complete the table:

$\times$	1	2	3	4	5	6	7	8	9	10
2										



I learnt the multiples of 2.

## Lessons 23, 24



Complete the missing number:

$2 \times \dots = 10$

$\dots \times 2 = 6$

$7 \times \dots = 14$

$\dots \times 4 = 8$

$9 \times \dots = 18$

$2 \times \dots = 16$



Find the product:

$9 \times 0 =$

$8 \times 2 =$

$7 \times 1 =$

$6 \times 1 =$

$5 \times 2 =$

$4 \times 2 =$

$3 \times 0 =$

$2 \times 1 =$

$1 \times 2 =$

$10 \times 1 =$

$1 \times 0 =$

$2 \times 0 =$

$5 \times 1 =$

$4 \times 1 =$

$3 \times 2 =$

$6 \times 2 =$

$7 \times 0 =$

$8 \times 1 =$

$1 \times 1 =$

$9 \times 2 =$

$10 \times 0 =$

$4 \times 0 =$

$2 \times 2 =$

$3 \times 1 =$

$7 \times 2 =$

$5 \times 0 =$

$6 \times 0 =$

$8 \times 0 =$

$10 \times 2 =$

$9 \times 1 =$



## Multiples of (3)



$$3 \times 1 = 3$$

$$3 \times 2 = 6$$

$$3 \times 3 = 9$$

$$3 \times 4 = 12$$

$$3 \times 5 = 15$$

$$3 \times 6 = 18$$

$$3 \times 7 = 21$$

$$3 \times 8 = 24$$

$$3 \times 9 = 27$$

$$3 \times 10 = 30$$

$$3 \times 11 = 33$$

$$3 \times 12 = 36$$

1 Find the product:

$$3 \times 1 = \dots\dots\dots$$

$$4 \times 3 = \dots\dots\dots$$

$$3 \times 9 = \dots\dots\dots$$

$$3 \times 10 = \dots\dots\dots$$

$$7 \times 3 = \dots\dots\dots$$

$$3 \times 6 = \dots\dots\dots$$

$$3 \times 5 = \dots\dots\dots$$

$$8 \times 3 = \dots\dots\dots$$

2 Match the equal results:

$$3 \times 2$$

$$3 \times 5$$

$$3 \times 7$$

27

24

21

18

6

15

$$3 \times 8$$

$$3 \times 9$$

$$3 \times 6$$

3 Complete the table:

$\times$	1	2	3	4	5	6	7	8	9	10
3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....





# Lessons 23 , 24



Complete the missing number:

$3 \times \dots = 15 \quad 3 \times \dots = 27 \quad 3 \times \dots = 18 \quad 3 \times \dots = 24$

$3 \times \dots = 21 \quad 3 \times \dots = 12 \quad 3 \times \dots = \dots \quad 3 \times \dots = 0$



Find the product:

$9 \times 3 = \dots$

$7 \times 3 = \dots$

$12 \times 3 = \dots$

$6 \times 2 = \dots$

$4 \times 0 = \dots$

$5 \times 3 = \dots$

$3 \times 3 = \dots$

$1 \times 2 = \dots$

$2 \times 2 = \dots$

$10 \times 2 = \dots$

$11 \times 3 = \dots$

$9 \times 0 = \dots$

$5 \times 2 = \dots$

$3 \times 2 = \dots$

$7 \times 1 = \dots$

$6 \times 1 = \dots$

$8 \times 2 = \dots$

$4 \times 2 = \dots$

$1 \times 1 = \dots$

$10 \times 3 = \dots$

$1 \times 3 = \dots$

$4 \times 3 = \dots$

$3 \times 0 = \dots$

$2 \times 0 = \dots$

$7 \times 2 = \dots$

$6 \times 3 = \dots$

$5 \times 1 = \dots$

$8 \times 1 = \dots$

$9 \times 2 = \dots$

$8 \times 3 = \dots$

## Common Multiples of (2, 3)

1	②	3	④	5	⑥	7	⑧	9	⑩
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100
101	102	103	104	105	106	107	108	109	110
111	112	113	114	115	116	117	118	119	120

### Notice

All multiples of 2 are called even numbers

1 Using 120 chart, answer:

Write 10 multiples of (2)

2

Write 10 multiples of (3)

3

Write 5 common multiples of (2 and 3)

\_\_\_\_\_ , \_\_\_\_\_ , \_\_\_\_\_ , \_\_\_\_\_ , \_\_\_\_\_

2 Write 5 multiples of 2 greater than 40:

\_\_\_\_\_ , \_\_\_\_\_ , \_\_\_\_\_ , \_\_\_\_\_ , \_\_\_\_\_

3 Write 5 multiples of 3 greater than 60:

\_\_\_\_\_ , \_\_\_\_\_ , \_\_\_\_\_ , \_\_\_\_\_ , \_\_\_\_\_



## Lessons 23, 24



### Multiples of (4)



$4 \times 1 = 4$

$4 \times 2 = 8$

$4 \times 3 = 12$

$4 \times 4 = 16$

$4 \times 5 = 20$

$4 \times 6 = 24$

$4 \times 7 = 28$

$4 \times 8 = 32$

$4 \times 9 = 36$

$4 \times 10 = 40$

$4 \times 11 = 44$

$4 \times 12 = 48$



Find the product:

$4 \times 1 = \dots\dots\dots$

$4 \times 4 = \dots\dots\dots$

$4 \times 9 = \dots\dots\dots$

$7 \times 4 = \dots\dots\dots$

$4 \times 6 = \dots\dots\dots$

$4 \times 5 = \dots\dots\dots$

$4 \times 10 = \dots\dots\dots$

$8 \times 4 = \dots\dots\dots$

$2 \times 4 = \dots\dots\dots$



Match the equal results:

$4 \times 2$

$4 \times 5$

$4 \times 7$

36

24

28

8

32

20

$4 \times 8$

$4 \times 9$

$4 \times 6$





Complete the table:

$\times$	1	2	3	4	5	6	7	8	9	10
4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....



Complete the missing number:

$$4 \times \dots = 20 \quad 4 \times \dots = 28 \quad 4 \times \dots = 24 \quad 4 \times \dots = 36$$



Find the product:

$$0 \times 5 = \dots$$

$$7 \times 4 = \dots$$

$$2 \times 9 = \dots$$

$$5 \times 4 = \dots$$

$$3 \times 7 = \dots$$

$$2 \times 3 = \dots$$

$$4 \times 9 = \dots$$

$$5 \times 2 = \dots$$

$$3 \times 4 = \dots$$

$$4 \times 7 = \dots$$

$$2 \times 8 = \dots$$

$$3 \times 9 = \dots$$

$$2 \times 2 = \dots$$

$$1 \times 9 = \dots$$

$$5 \times 3 = \dots$$

$$4 \times 8 = \dots$$

$$8 \times 0 = \dots$$

$$8 \times 3 = \dots$$

$$2 \times 6 = \dots$$

$$4 \times 1 = \dots$$

$$3 \times 3 = \dots$$

$$4 \times 4 = \dots$$

$$1 \times 1 = \dots$$

$$4 \times 6 = \dots$$

$$3 \times 6 = \dots$$

$$10 \times 3 = \dots$$

$$4 \times 10 = \dots$$

# Lessons 23, 24



## Multiples of (5)



$$5 \times 1 = 5$$

$$5 \times 2 = 10$$

$$5 \times 3 = 15$$

$$5 \times 4 = 20$$

$$5 \times 5 = 25$$

$$5 \times 6 = 30$$

$$5 \times 7 = 35$$

$$5 \times 8 = 40$$

$$5 \times 9 = 45$$

$$5 \times 10 = 50$$

$$5 \times 11 = 55$$

$$5 \times 12 = 60$$



Find the product:

$$5 \times 5 = \dots\dots\dots$$

$$5 \times 9 = \dots\dots\dots$$

$$8 \times 5 = \dots\dots\dots$$

$$7 \times 5 = \dots\dots\dots$$

$$6 \times 5 = \dots\dots\dots$$

$$12 \times 5 = \dots\dots\dots$$

$$11 \times 5 = \dots\dots\dots$$

$$3 \times 5 = \dots\dots\dots$$

$$5 \times 4 = \dots\dots\dots$$



Match the equal results:

$$4 \times 5$$

$$5 \times 7$$

$$5 \times 12$$

55

45

60

40

35

20

$$8 \times 5$$

$$5 \times 11$$

$$5 \times 9$$







Complete the table:

×	1	2	3	4	5	6	7	8	9	10
5	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....



Complete the missing number:

$5 \times \dots = 15$

$5 \times \dots = 55$

$5 \times \dots = 5$

$5 \times \dots = 45$

$5 \times \dots = 60$

$5 \times \dots = 35$

$5 \times \dots = 30$

$5 \times \dots = 40$

$5 \times \dots = 20$



Choose the correct answer:

1  $5 \times \dots = 35$

( 7 - 8 - 9 )

2  $4 \times 5 = \dots$

( 20 - 30 - 40 )

3  $5 \times \dots = 0$

( 1 - 2 - 0 )

4  $9 \times \dots = 45$

( 6 - 5 - 4 )

5  $5 \times \dots = 40$

( 8 - 9 - 0 )

6  $3 \times \dots = 21$

( 4 - 6 - 7 )

7  $8 \times \dots = 24$

( 3 - 4 - 5 )

# Lessons 23, 24



## Multiples of 6



$6 \times 1 = 6$

$6 \times 2 = 12$

$6 \times 3 = 18$

$6 \times 4 = 24$

$6 \times 5 = 30$

$6 \times 6 = 36$

$6 \times 7 = 42$

$6 \times 8 = 48$

$6 \times 9 = 54$

$6 \times 10 = 60$

$6 \times 11 = 66$

$6 \times 12 = 72$



Find the product:

$6 \times 6 = \dots\dots\dots$

$6 \times 9 = \dots\dots\dots$

$6 \times 4 = \dots\dots\dots$

$3 \times 6 = \dots\dots\dots$

$5 \times 6 = \dots\dots\dots$

$7 \times 6 = \dots\dots\dots$

$6 \times 2 = \dots\dots\dots$

$6 \times 1 = \dots\dots\dots$

$6 \times 8 = \dots\dots\dots$



Match the equal results:

$6 \times 6$

$6 \times 5$

$6 \times 3$

30

42

24

18

36

48

$6 \times 8$

$6 \times 7$

$6 \times 4$





Complete the table:

×	1	2	3	4	5	6	7	8	9	10
6	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....



Compare using ( $>$ ,  $<$  or  $=$ ):

$$18 - 12 \quad \dots\dots\dots 6 \times 1 \qquad 6 \times 6 \quad \dots\dots\dots 6 \times 5$$

$$25 + 27 \quad \dots\dots\dots 7 \times 6 \qquad 9 \times 4 \quad \dots\dots\dots 6 \times 6$$



Choose the correct answer:

- |   |       |   |       |   |       |                  |
|---|-------|---|-------|---|-------|------------------|
| 1 | 6     | × | 11    | = | ..... | ( 66 - 24 - 18 ) |
| 2 | ..... | × | 6     | = | 24    | ( 3 - 4 - 5 )    |
| 3 | 5     | × | 9     | = | ..... | ( 18 - 45 - 54 ) |
| 4 | 5     | × | ..... | = | 30    | ( 7 - 6 - 8 )    |
| 5 | ..... | × | 6     | = | 72    | ( 12 - 11 - 10 ) |
| 6 | ..... | × | 9     | = | 54    | ( 5 - 6 - 7 )    |
| 7 | 3     | × | ..... | = | 21    | ( 5 - 6 - 7 )    |
| 8 | 5     | × | ..... | = | 35    | ( 5 - 6 - 7 )    |

# Lessons 23 , 24



## Multiples of (7)



$$7 \times 1 = 7$$

$$7 \times 2 = 14$$

$$7 \times 3 = 21$$

$$7 \times 4 = 28$$

$$7 \times 5 = 35$$

$$7 \times 6 = 42$$

$$7 \times 7 = 49$$

$$7 \times 8 = 56$$

$$7 \times 9 = 63$$

$$7 \times 10 = 70$$

$$7 \times 11 = 77$$

$$7 \times 12 = 84$$



Complete the missing number:

$$4 \times 7 = \dots\dots\dots$$

$$5 \times \dots\dots\dots = 35$$

$$\dots\dots\dots \times 7 = 21$$

$$2 \times \dots\dots\dots = 14$$

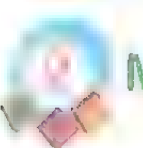
$$\dots\dots\dots \times 7 = 63$$

$$\dots\dots\dots \times 7 = 70$$

$$7 \times \dots\dots\dots = 49$$

$$7 \times \dots\dots\dots = 7$$

$$7 \times \dots\dots\dots = 42$$



Match the equal results:

$$7 \times 7$$

$$7 \times 8$$

$$7 \times 9$$

49

56

35

63

70

7

$$7 \times 5$$

$$7 \times 10$$

$$7 \times 1$$





Complete the table:

$\times$	1	2	3	4	5	6	7	8	9	10
7	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....



Answer the following:

A worker works 7 hours a day.

How many hours does he work in 5 days?

.....

Kenzi has 6 bags of apples. Each bag has 7 apples.

What is the total number of the apples?

.....

Karim bought 3 bars of chocolate for 9 pounds each.

How many pounds did Karim pay?

.....

In P.E class, the students stood in 4 rows. Each row had 7 students.

How many students were there in the class?

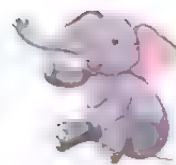
.....



# Lessons 23 , 24



## Multiples of (8)



$$8 \times 1 = 8$$

$$8 \times 2 = 16$$

$$8 \times 3 = 24$$

$$8 \times 4 = 32$$

$$8 \times 5 = 40$$

$$8 \times 6 = 48$$

$$8 \times 7 = 56$$

$$8 \times 8 = 64$$

$$8 \times 9 = 72$$

$$8 \times 10 = 80$$

$$8 \times 11 = 88$$

$$8 \times 12 = 96$$



Find the product:

$$3 \times 8 = \dots\dots\dots$$

$$6 \times 8 = \dots\dots\dots$$

$$5 \times 8 = \dots\dots\dots$$

$$7 \times 8 = \dots\dots\dots$$

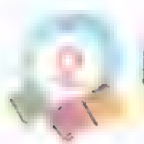
$$10 \times 8 = \dots\dots\dots$$

$$8 \times 8 = \dots\dots\dots$$

$$8 \times 9 = \dots\dots\dots$$

$$8 \times 2 = \dots\dots\dots$$

$$8 \times 11 = \dots\dots\dots$$



Match the equal results:

$$2 \times 8$$

$$3 \times 8$$

$$5 \times 8$$

72

16

24

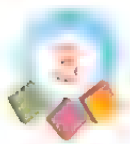
48

$$9 \times 8$$

$$8 \times 8$$

$$6 \times 8$$





Choose the correct answer:

32

$3 \times 8$     $4 \times 8$     $2 \times 8$

80

$10 \times 8$     $9 \times 8$     $1 \times 8$

64

$2 \times 8$     $4 \times 8$     $8 \times 8$

56

$8 \times 8$     $7 \times 8$     $10 \times 8$



Complete the table:

$\times$	1	2	3	4	5	6	7	8	9	10
8	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....



Answer the following:

Hani bought 7 pens for 8 pounds each.

How much did Hani pay for the pens?

.....

There are 8 cars. Each car has 4 wheels.

What is the total number of the wheels?

.....

There are 8 boxes. Each box has 10 cartons of juice.

What is the total number of juice cartons?

.....

# Lessons 23, 24



## Multiples of (9)



$$9 \times 1 = 9$$

$$9 \times 2 = 18$$

$$9 \times 3 = 27$$

$$9 \times 4 = 36$$

$$9 \times 5 = 45$$

$$9 \times 6 = 54$$

$$9 \times 7 = 63$$

$$9 \times 8 = 72$$

$$9 \times 9 = 81$$

$$9 \times 10 = 90$$

$$9 \times 11 = 99$$

$$9 \times 12 = 108$$



Find the product:

$$3 \times 9 = \dots\dots\dots$$

$$2 \times 9 = \dots\dots\dots$$

$$9 \times 9 = \dots\dots\dots$$

$$7 \times 9 = \dots\dots\dots$$

$$9 \times 5 = \dots\dots\dots$$

$$9 \times 4 = \dots\dots\dots$$



Compare using ( $>$ ,  $<$  or  $=$ ):

$$9 \times 4 \quad \dots\dots\dots \quad 6 \times 6$$

$$6 \times 9 \quad \dots\dots\dots \quad 8 \times 5$$

$$7 \times 8 \quad \dots\dots\dots \quad 9 \times 8$$

$$9 \times 3 \quad \dots\dots\dots \quad 7 + 20$$



Complete the table:

$\times$	1	2	3	4	5	6	7	8	9	10
	$\dots\dots\dots$	$\dots\dots\dots$	$\dots\dots\dots$	$\dots\dots\dots$	$\dots\dots\dots$	$\dots\dots\dots$	$\dots\dots\dots$	$\dots\dots\dots$	$\dots\dots\dots$	$\dots\dots\dots$





4 Match the equal results:

$3 \times 9$

$7 \times 9$

$4 \times 9$

72

63

27

45

36

54

$5 \times 9$

$8 \times 9$

$6 \times 9$



5 Choose the correct answer:

$9 \times 4$

$9 \times 9$

( 36 - 63 - 45 )

( 81 - 71 - 61 )

$9 \times 3$

$8 \times 9$

( 27 - 18 - 38 )

( 32 - 52 - 72 )

$9 \times 6$

$9 \times 5$

( 54 - 45 - 62 )

( 40 - 45 - 35 )

$9 \times 7$

$9 \times 10$

( 63 - 62 - 72 )

( 80 - 90 - 100 )

# Lessons 23, 24



## Multiples of 10



$$10 \times 1 = 10$$

$$10 \times 2 = 20$$

$$10 \times 3 = 30$$

$$10 \times 4 = 40$$

$$10 \times 5 = 50$$

$$10 \times 6 = 60$$

$$10 \times 7 = 70$$

$$10 \times 8 = 80$$

$$10 \times 9 = 90$$

$$10 \times 10 = 100$$

$$10 \times 11 = 110$$

$$10 \times 12 = 120$$



Find the product:

$$4 \times 10 = \dots\dots\dots$$

$$2 \times 10 = \dots\dots\dots$$

$$8 \times 10 = \dots\dots\dots$$

$$7 \times 10 = \dots\dots\dots$$

$$6 \times 10 = \dots\dots\dots$$

$$9 \times 10 = \dots\dots\dots$$



Complete the table:

$\times$	1	2	3	4	5	6	7	8	9	10
	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....



Compare using ( = , < or > ):

$$3 \times 10 \quad \text{-----} \quad 10 \times 3$$

$$7 \times 10 \quad \text{-----} \quad 6 \times 9$$

$$5 \times 10 \quad \text{-----} \quad 10 \times 6$$

$$8 \times 7 \quad \text{-----} \quad 8 \times 10$$







Match the equal results:

$10 \times 5$

$10 \times 7$

$10 \times 8$

70

80

50

40

30

60

$10 \times 3$

$10 \times 6$

$10 \times 4$



Complete the missing number:

$7 \times \text{.....} = 0$

$6 \times 10 = \text{.....}$

$3 \times \text{.....} = 30$

$5 \times \text{.....} = 0$

$7 \times \text{.....} = 63$

$9 \times \text{.....} = 81$

$9 \times \text{.....} = 90$

$\text{.....} \times 7 = 70$

$4 \times \text{.....} = 40$

$10 \times \text{.....} = 80$

# Lessons 23, 24



Find the product:

$$\begin{array}{r} 4 \\ \times 6 \\ \hline \end{array}$$

$$\begin{array}{r} 6 \\ \times 7 \\ \hline \end{array}$$

$$\begin{array}{r} 3 \\ \times 9 \\ \hline \end{array}$$

$$\begin{array}{r} 7 \\ \times 9 \\ \hline \end{array}$$

$$\begin{array}{r} 9 \\ \times 6 \\ \hline \end{array}$$

$$\begin{array}{r} 4 \\ \times 12 \\ \hline \end{array}$$

$$\begin{array}{r} 9 \\ \times 5 \\ \hline \end{array}$$

$$\begin{array}{r} 2 \\ \times 8 \\ \hline \end{array}$$

$$\begin{array}{r} 4 \\ \times 8 \\ \hline \end{array}$$

$$\begin{array}{r} 8 \\ \times 3 \\ \hline \end{array}$$

$$\begin{array}{r} 8 \\ \times 9 \\ \hline \end{array}$$

$$\begin{array}{r} 7 \\ \times 4 \\ \hline \end{array}$$

$$\begin{array}{r} 5 \\ \times 5 \\ \hline \end{array}$$

$$\begin{array}{r} 5 \\ \times 3 \\ \hline \end{array}$$

$$\begin{array}{r} 8 \\ \times 6 \\ \hline \end{array}$$

$$\begin{array}{r} 6 \\ \times 5 \\ \hline \end{array}$$

$$\begin{array}{r} 8 \\ \times 11 \\ \hline \end{array}$$

$$\begin{array}{r} 12 \\ \times 8 \\ \hline \end{array}$$

$$\begin{array}{r} 12 \\ \times 3 \\ \hline \end{array}$$

$$\begin{array}{r} 9 \\ \times 4 \\ \hline \end{array}$$

$$\begin{array}{r} 6 \\ \times 6 \\ \hline \end{array}$$

$$\begin{array}{r} 5 \\ \times 7 \\ \hline \end{array}$$

$$\begin{array}{r} 8 \\ \times 5 \\ \hline \end{array}$$

$$\begin{array}{r} 7 \\ \times 10 \\ \hline \end{array}$$

$$\begin{array}{r} 8 \\ \times 7 \\ \hline \end{array}$$

$$\begin{array}{r} 9 \\ \times 2 \\ \hline \end{array}$$

$$\begin{array}{r} 7 \\ \times 7 \\ \hline \end{array}$$

$$\begin{array}{r} 8 \\ \times 8 \\ \hline \end{array}$$

$$\begin{array}{r} 7 \\ \times 11 \\ \hline \end{array}$$

$$\begin{array}{r} 12 \\ \times 2 \\ \hline \end{array}$$

# Chapter (3) Lesson (25)

We have 6 chairs. How many different arrays can we create?



$$3 \times 2$$



$$1 \times 6$$



$$2 \times 3$$



$$6 \times 1$$

## Notice

$$1 \times 6 = 6 \quad 6 \times 1 = 6$$

$$2 \times 3 = 6 \quad 3 \times 2 = 6$$

Factors of 6 are (1, 2, 3, 6)



Answer as the previous example:

Use arrays to arrange 8 balls, then write the factors of 8.

$$1 \times \dots = 8$$

$$2 \times \dots = 8$$

The first array



The second array



Factors of 8 are (....., ....., ....., .....)



## Lesson 25

Use the arrays to arrange 10 marbles, then write factors of 10.

The first array

$$\dots \times \dots = 10$$

The second array

$$\dots \times \dots = 10$$

Factors of 10 are ( , , , )

Use the arrays to arrange 9 balls, then write factors of 9.

The first array

$$\dots \times \dots = 9$$

The second array

$$\dots \times \dots = 9$$

Factors of 9 are ( , , )

Use the arrays to arrange 4 stars, then write factors of 4.

The first array

$$\dots \times \dots = 4$$

The second array

$$\dots \times \dots = 4$$

Factors of 4 are ( , , )

2 Write the factors as the example:



15

$$1 \times 15 \quad 3 \times 5$$

Factors of 15 are  
(1, 3, 5, 15)

35

$$\dots \times \dots \quad \dots \times \dots$$

Factors of 35 are  
(\dots, \dots, \dots, \dots)

14

$$\dots \times \dots \quad \dots \times \dots$$

Factors of 14 are  
(\dots, \dots, \dots, \dots)

25

$$\dots \times \dots \quad \dots \times \dots$$

Factors of 25 are  
(\dots, \dots, \dots)

21

$$\dots \times \dots \quad \dots \times \dots$$

Factors of 21 are  
(\dots, \dots, \dots, \dots)

22

$$\dots \times \dots \quad \dots \times \dots$$

Factors of 22 are  
(\dots, \dots, \dots, \dots)



## Lesson 25



Complete, then write the factors of each number:

$12 = 1 \times \dots\dots\dots$

$12 = 2 \times \dots\dots\dots$

$12 = 3 \times \dots\dots\dots$

Factors of 12 are .....

$18 = 1 \times \dots\dots\dots$

$18 = 2 \times \dots\dots\dots$

$18 = 3 \times \dots\dots\dots$

Factors of 18 are .....

$24 = 1 \times \dots\dots\dots$

$24 = 2 \times \dots\dots\dots$

$24 = 3 \times \dots\dots\dots$

$24 = 4 \times \dots\dots\dots$

Factors of 24 are .....

$20 = 1 \times \dots\dots\dots$

$20 = 2 \times \dots\dots\dots$

$20 = 4 \times \dots\dots\dots$

Factors of 20 are .....



Circle the correct answer:

One of the factors of 12

( 5 - 7 - 4 )

One of the factors of 20

( 7 - 8 - 9 )

One of the factors of 60

( 6 - 8 - 7 )

One of the factors of 40

( 8 - 9 - 6 )

One of the factors of 70

( 5 - 8 - 7 )

# Chapter (3)

## Lessons

### (26 , 27)

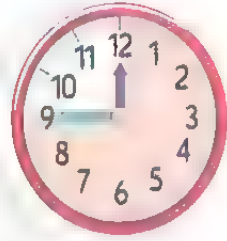
# Telling Time



a quarter of an hour  
15 minutes



half an hour  
30 minutes



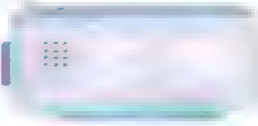
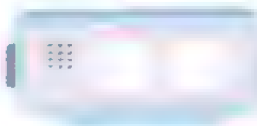
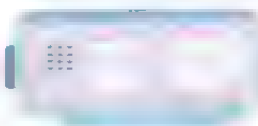
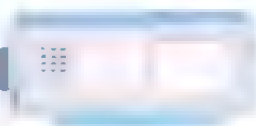
3 quarters  
45 minutes



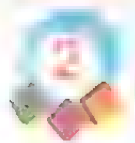
an hour  
60 minutes



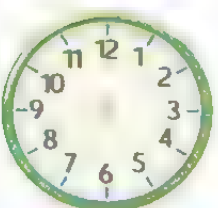
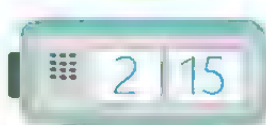
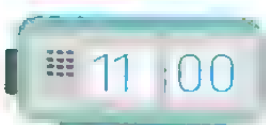
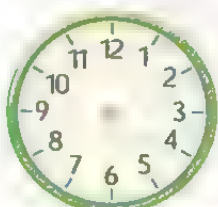
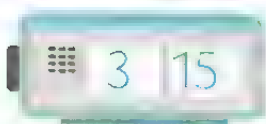
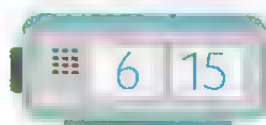
Write the time on the digital clock as the example:



# Lessons 26 , 27



2 Draw the clock hands as the example:



Reading and writing the time to 5-minutes.

An hour = 60 minutes



scale

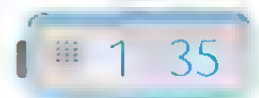


When the long hand points to (1) it means that (5) minutes have passed. When it points to (2), so (10) minutes have passed

**Example:** The hour hand is between (1 and 2). The minutes hand points to (7). So, the time is after one o'clock.

No. of minutes =  $7 \times 5 = 35$  minutes.

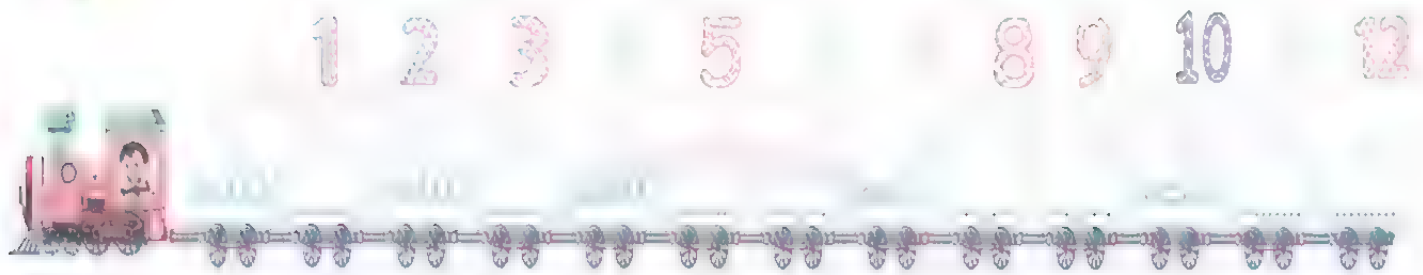
So, the time is 1:35 (one thirty five)



# Lessons 26 , 27



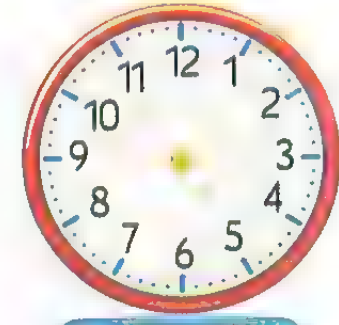
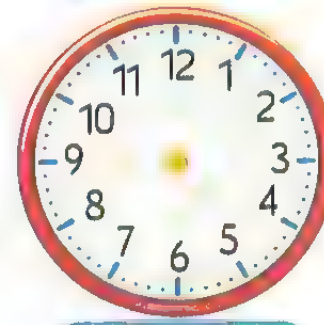
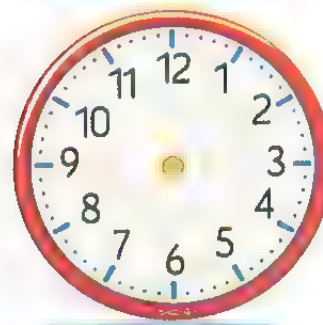
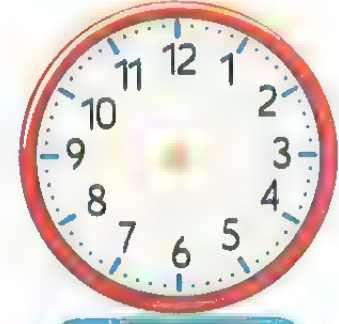
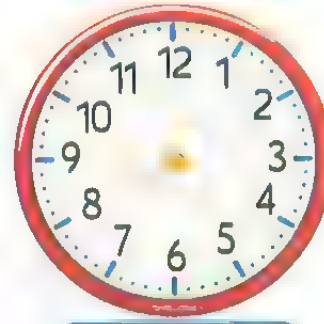
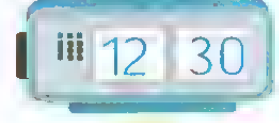
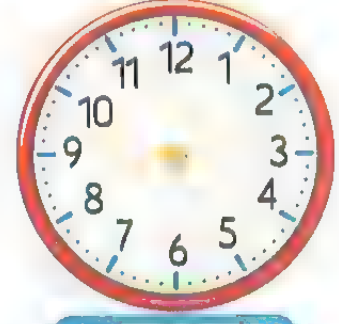
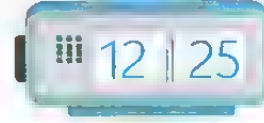
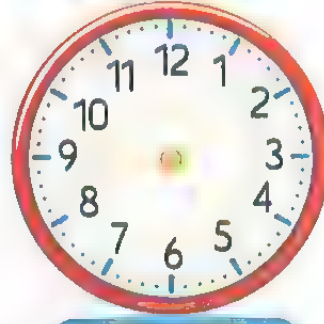
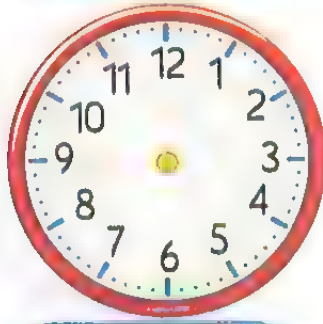
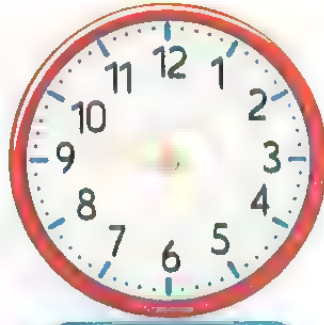
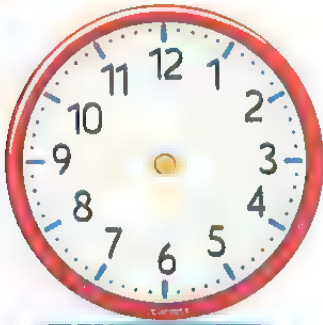
Complete as the example to represent an hour:







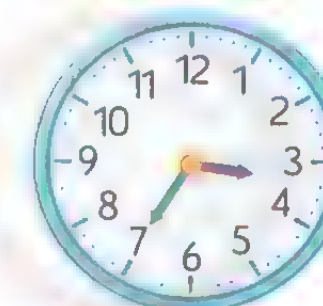
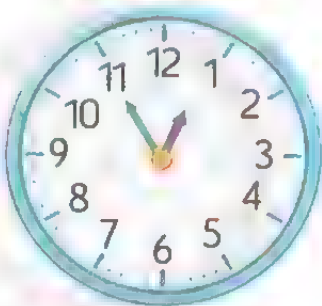
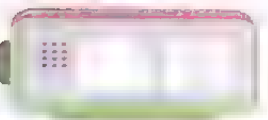
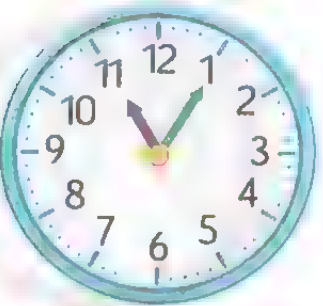
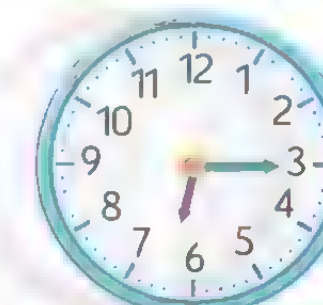
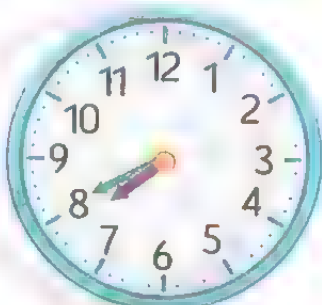
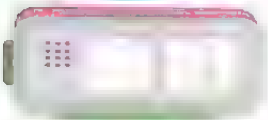
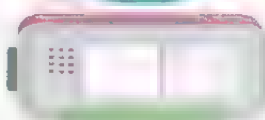
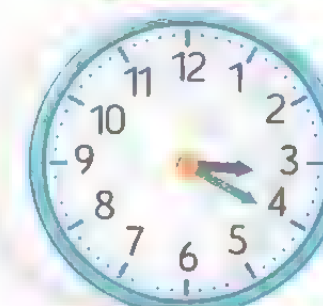
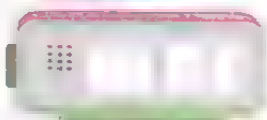
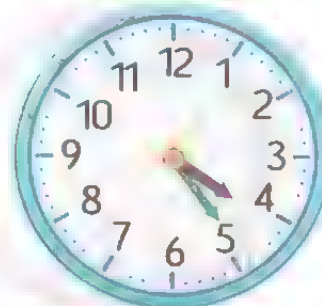
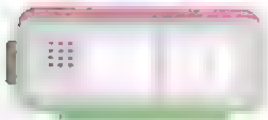
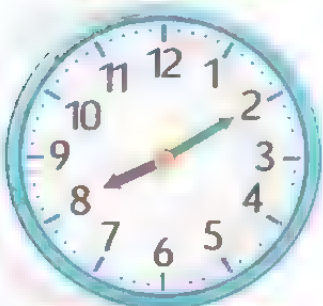
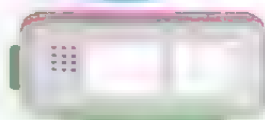
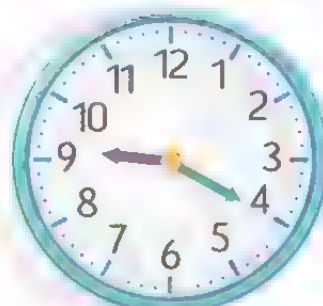
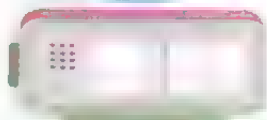
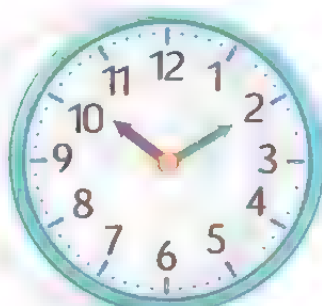
Draw the clock hands to show the time:



# Lessons 26 , 27

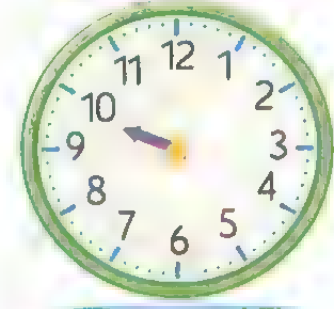
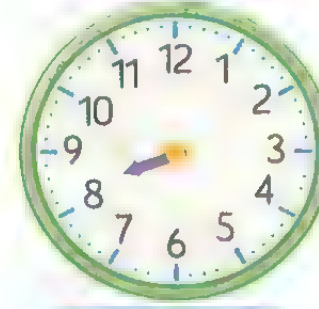
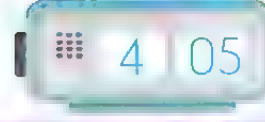
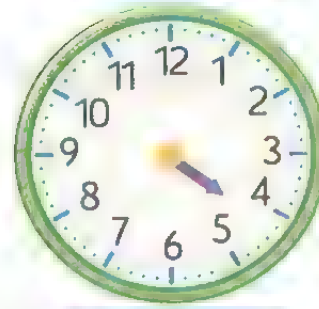
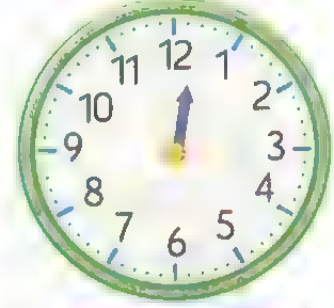
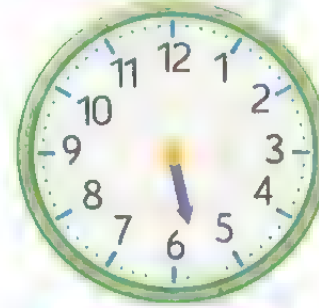
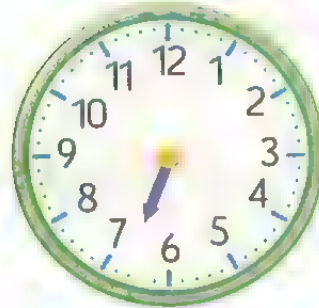
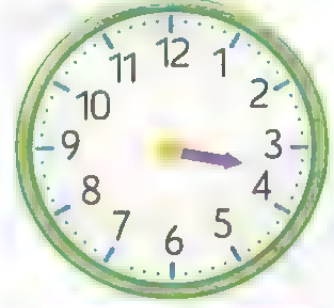
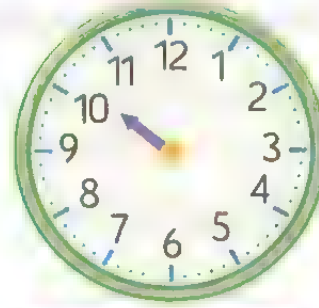
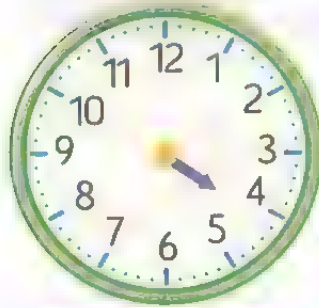
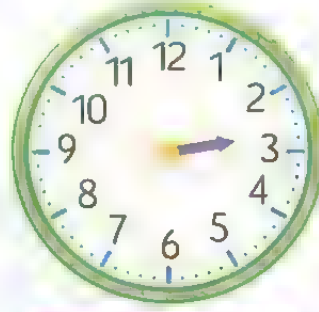


Write the time on the digital clock:





Draw the minutes hand according to the time:





# Lessons 26 , 27

## Elapsed Time

Amr started running at 3:00

He finished running at 3:30



5 10 15 20 25 30



Elapsed time = 30 minutes

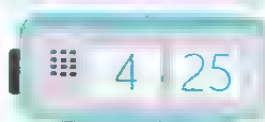
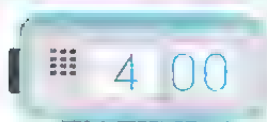


Complete as the example:

Start

Finish

Elapsed time



25 minutes



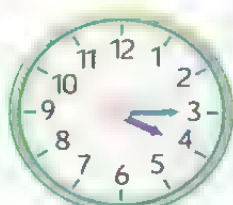
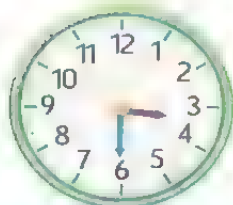
..... minutes



..... minutes



..... minutes

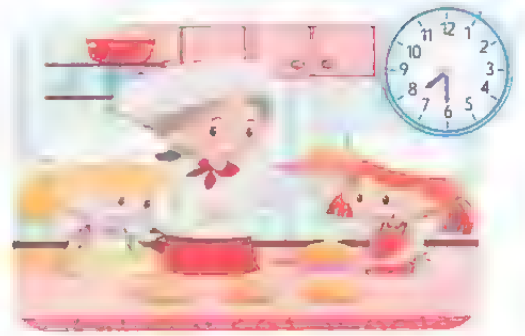


..... minutes

## Story problems involving time

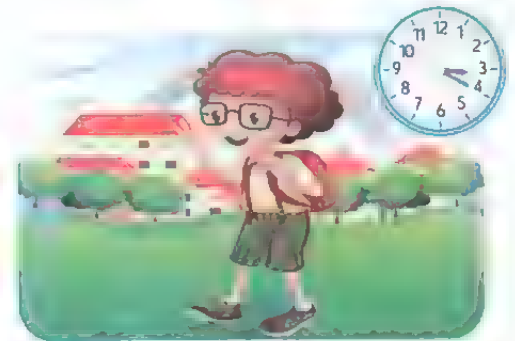
1

Mum put the cakes in the oven at (7:00). When she took them out, the time was as shown in the picture. How long did the cakes take in the oven? .....



2

Omar left school at (3:00). When he reached home, the time was as shown in the picture. How long did Omar take to walk from school to home? .....



3

Mahmoud likes running. He started running at (7:00). When he finished, the time was as shown in the picture. How long did Mahmoud run? .....





## Lessons 26 , 27



The following table shows the daily activities for the pilot, Sameh:

Activities	Times	
	Start	Finish
Getting up and having food	6 : 30	7 : 30
Going to the airport	7 : 30	8 : 00
Plane take off	8 : 45	9 : 00
Period of the flight	9 : 00	12 : 00
Plane landing	12 : 00	12 : 30



- 1 How long does the plane take to take off?  
.....
- 2 Which takes longer time, plane take off or plane landing? .....
- 3 How long does the flight take? .....



The two clocks below show when Mona started and finished tidying up her room:

How long did Mona take?

Start

End

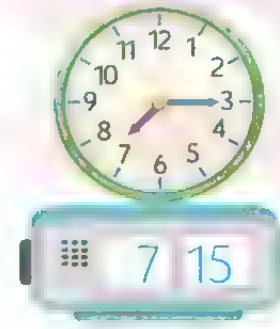
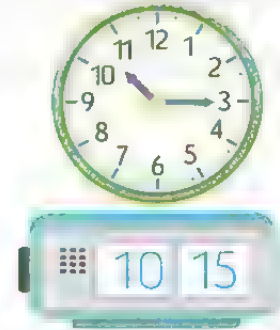
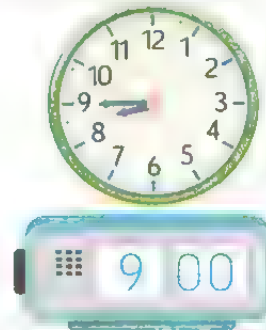
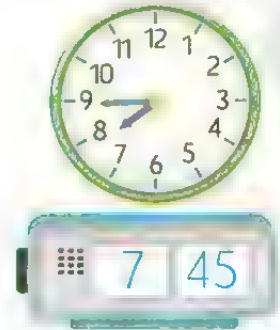
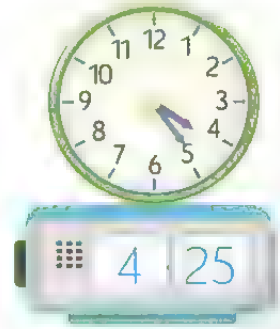
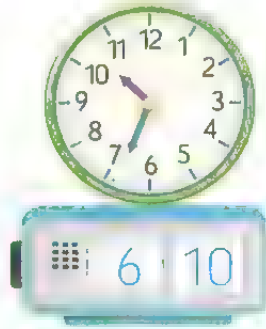
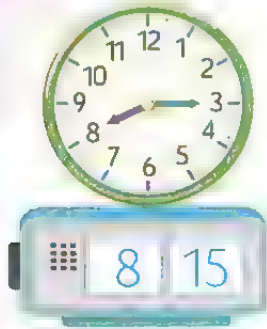
1 One hour      3 An hour and a half

Half an hour      Two hours and a half





Tick (✓) below the typical time to the analog clock:



Chapter (3)  
Lessons  
(28, 29)

# Division



Division: it is the operation which makes equal group



Example: Make 3 equal groups out of 12 flowers

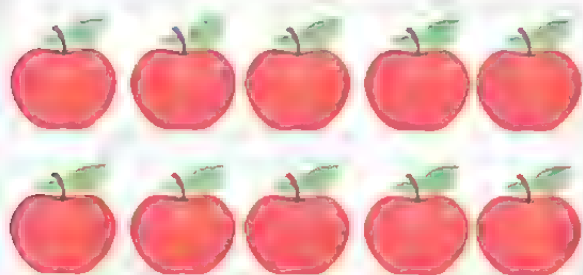


12 flowers were divided into 3 groups. So there were 4 flowers in each group.



Answer as required:

Make 2 groups out of 10 apples



No. of groups = .....

Each group has = ..... apples

Make 3 groups out of 18 bottles



No. of groups = .....

Each group has = ..... bottles



Make 4 groups out of 12 balloons



Make 3 groups out of 6 cups



No. of groups = .....

No. of groups = .....

Each group has = ..... balloons

Each group has = ..... cups



Answer the following:

Distribute 10 eggs to two nests.



Each nest has ..... eggs

Distribute 6 pieces of cake to two plates.



Each plate has ..... pieces of cake

## Lessons 28, 29

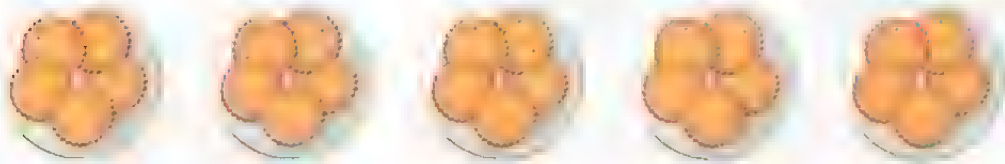
Divide 15 fish into 3 equal groups



No. of groups = .....

Each group has ..... fish

Divide 25 pieces of biscuits into 5 equal groups



No. of groups = .....

Each group has ..... pieces of biscuits

Distribute 20 apples equally among 4 groups



No. of groups = .....

Each group has ..... apples

Distribute 9 marbles equally among 3 groups



No. of groups = .....

Each group has ..... marbles

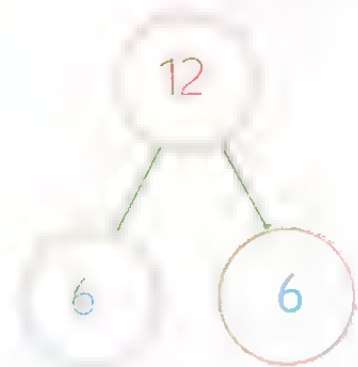


## Story problems involving division

Salma bought 12 flowers. She wanted to share them equally with her friend, Hana.

How many flowers did each one have?

**Solution:** We create two equal groups of flowers.



**Answer the following:**

There are 28 fish. Put them into 4 aquariums.

How many fish are there in each aquarium?

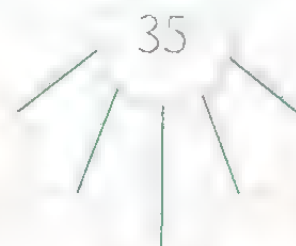


No. of aquariums = .....

No. of fish in each aquarium = ..... fish

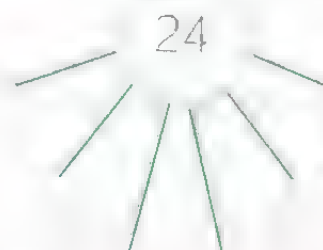
## Lessons 18, 29

Sameh prepares baskets for oranges. He has 35 oranges. He wants to divide them equally into 5 baskets. How many oranges will he put in each basket?



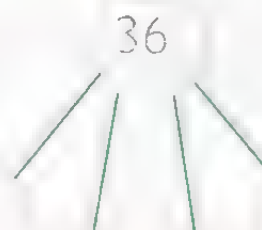
A teacher has 24 crayons. She wants to distribute them equally among 6 students.

How many crayons will each student take?



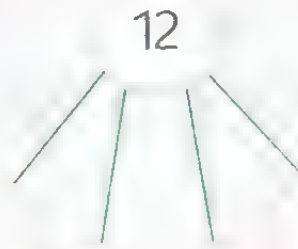
On Mona's birthday, she distributed 36 balloons among 4 of her friends.

How many balloons did each friend have?

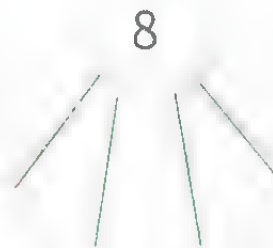


## Chapter 3

Salma wanted to distribute 12 cookies equally to 4 plates. How many cookies are there in each plate?



Amin distributed 8 apples among 4 of his friends without keeping any apples for himself. How many apples did every one take?



Ahmed has 30 eggs. He wanted to put them equally in 3 plates.

How many eggs are there in each plate?



## Lessons 28, 29



### Other strategies for division

Example

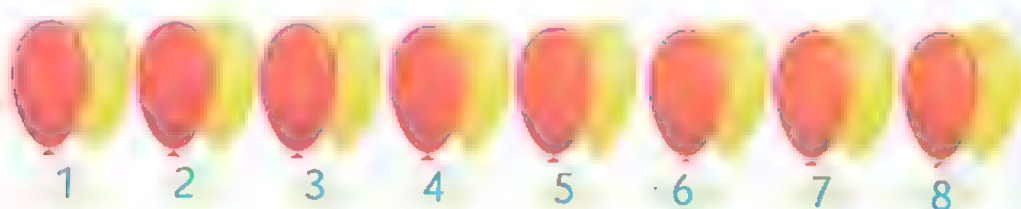


We have 16 balloons. We tied them in groups of 2 balloons each. How many groups can we make?

(We can solve this story problem using one of the following strategies.

#### 1<sup>st</sup> Strategy: Drawing

groups



No. of groups = 8 groups

#### 2<sup>nd</sup> Strategy: Counting by multiples

Counting on by raising a finger each time.



2	4	6	8	10	12	14	16
1	2	3	4	5	6	7	8

No. of groups = 8 groups



Solve the following story problems as the previous example:

Each cat eats 2 fish. We have 18 fish.

How many cats can be fed?

.....

.....

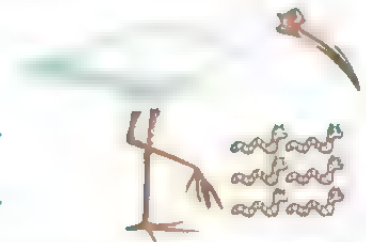


An ibis eats 6 worms. We have 24 worms.

How many ibis can be fed?

.....

.....



Each frog must eat 8 insects. We have 32 insects.

How many frogs can be fed?

.....

.....

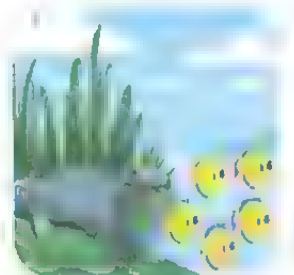


Each crocodile eats 5 fish. We have 35 fish.

How many crocodiles can be fed?

.....

.....





## Lessons 28, 29

Each ox eats 4 bales of grass daily.  
We have 28 bales. How many oxen can  
be fed?.....



Salma saves 5 pounds a day.  
How many days until she needs to save  
40 pounds?.....



Each person eats 3 loaves of bread daily.  
We have 24 loaves of bread. How many  
people can be fed?.....



Each student takes 4 notebooks. We have  
36 notebooks. How many students can we  
give notebooks?.....



# Chapter (3)

## Lesson

### (30)



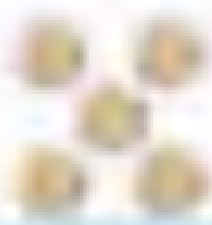
Example

Ahmed spends 15 pounds in 3 days.  
How much money does Ahmed spend a day?

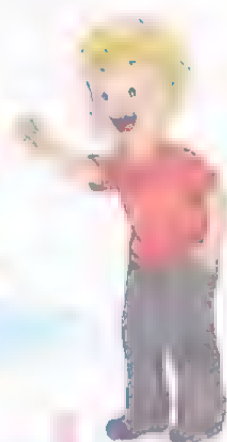
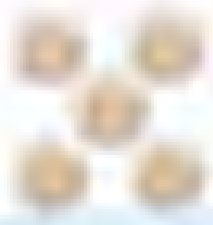
First day



Second day



Third day



We can write the division sentence as following:

$$15 \div 3 = 5$$

dividend      division sign      divisor      quotient

We can say: 15 divided by 3 equals 5.

Practise

Shady distributed 12 apples equally among 4 of his friends. How many apples did everyone have?

$$\begin{aligned} \text{Everyone's share} &= 12 \div 4 \\ &= 3 \text{ apples} \end{aligned}$$



# Lesson 30



Write the missing factor in each triangle, then write the multiplication and division facts as the example:

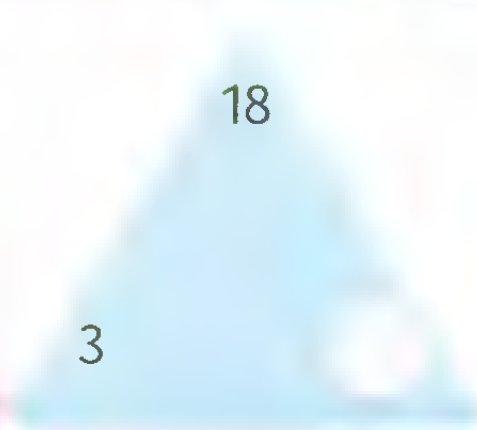


$$6 \times 4 = 24$$

$$4 \times 6 = 24$$

$$24 \div 4 = 6$$

$$24 \div 6 = 4$$



$$3 \times 6 = \dots\dots\dots$$

$$6 \times 3 = \dots\dots\dots$$

$$18 \div \dots\dots\dots = \dots\dots\dots$$

$$\dots\dots\dots \div \dots\dots\dots = \dots\dots\dots$$



$$4 \times 7 = \dots\dots\dots$$

$$7 \times \dots\dots\dots = \dots\dots\dots$$

$$28 \div \dots\dots\dots = \dots\dots\dots$$

$$\dots\dots\dots \div \dots\dots\dots = \dots\dots\dots$$



$$\dots\dots \times \dots\dots = \dots\dots\dots$$

$$\dots\dots \times \dots\dots = \dots\dots\dots$$

$$\dots\dots \div \dots\dots = \dots\dots\dots$$

$$\dots\dots \div \dots\dots = \dots\dots\dots$$

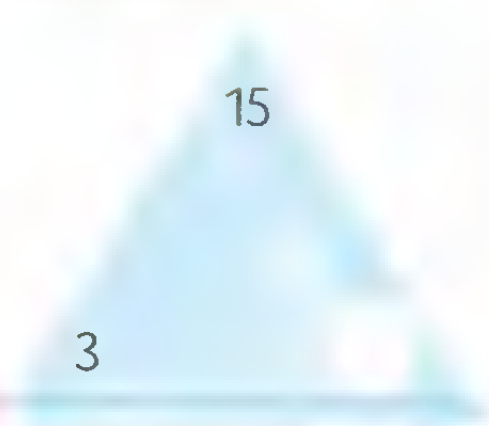


$$\dots\dots \times \dots\dots = \dots\dots\dots$$

$$\dots\dots \times \dots\dots = \dots\dots\dots$$

$$\dots\dots \div \dots\dots = \dots\dots\dots$$

$$\dots\dots \div \dots\dots = \dots\dots\dots$$



$$\dots\dots \times \dots\dots = \dots\dots\dots$$

$$\dots\dots \times \dots\dots = \dots\dots\dots$$

$$\dots\dots \div \dots\dots = \dots\dots\dots$$

$$\dots\dots \div \dots\dots = \dots\dots\dots$$

32

4

.....	.....	.....
.....	.....	.....
.....	.....	.....
.....	.....	.....

36

9

.....	×	.....	=	.....
.....	×	.....	-	.....
.....	÷	.....	-	.....
.....	÷	.....	=	.....

20

10

.....	.....	.....
.....	.....	.....
.....	.....	.....
.....	.....	.....

24

8

.....	.....	.....
.....	.....	.....
.....	.....	.....
.....	.....	.....

72

9

.....	.....	.....
.....	.....	.....
.....	.....	.....
.....	.....	.....

42

6

.....	×	.....	=	.....
.....	×	.....	-	.....
.....	÷	.....	=	.....
.....	÷	.....	=	.....


# Lesson 30



Match the multiplication sentence to the division facts:


$$3 \times 5 = 15$$


$$3 \times 8 = 24$$


$$6 \times 9 = 54$$


$$5 \times 7 = 35$$


$$8 \times 7 = 56$$


$$54 \div 6 = 9$$

$$54 \div 9 = 6$$


$$56 \div 7 = 8$$

$$56 \div 8 = 7$$


$$15 \div 3 = 5$$

$$15 \div 5 = 3$$


$$24 \div 3 = 8$$

$$24 \div 8 = 3$$


$$35 \div 5 = 7$$

$$35 \div 7 = 5$$





Find the quotient:

$$24 \div 8 = \dots\dots\dots$$

$$27 \div 3 = \dots\dots\dots$$

$$48 \div 8 = \dots\dots\dots$$

$$35 \div 7 = \dots\dots\dots$$

$$18 \div 3 = \dots\dots\dots$$

$$36 \div 9 = \dots\dots\dots$$

$$56 \div 7 = \dots\dots\dots$$

$$64 \div 8 = \dots\dots\dots$$

$$63 \div 7 = \dots\dots\dots$$

$$42 \div 7 = \dots\dots\dots$$

$$32 \div 4 = \dots\dots\dots$$

$$54 \div 9 = \dots\dots\dots$$



Complete the missing number:

$$72 \div \dots\dots\dots = 9$$

$$24 \div \dots\dots\dots = 8$$

$$21 \div \dots\dots\dots = 3$$

$$35 \div \dots\dots\dots = 7$$

$$27 \div \dots\dots\dots = 9$$

$$\dots\dots\dots \div 4 = 8$$

$$12 \div \dots\dots\dots = 3$$

$$\dots\dots\dots \div 7 = 4$$

$$40 \div \dots\dots\dots = 8$$

$$63 \div 9 = \dots\dots\dots$$

$$18 \div \dots\dots\dots = 6$$

$$\dots\dots\dots \div 4 = 4$$

# Review on Chapter Three



Find the result:

$3 \times 7 = \dots\dots\dots$

$4 \times 9 = \dots\dots\dots$

$8 \times 7 = \dots\dots\dots$

$7 \times 4 = \dots\dots\dots$

$9 \times 8 = \dots\dots\dots$

$8 \div 2 = \dots\dots\dots$

$12 \div 3 = \dots\dots\dots$

$18 \div 6 = \dots\dots\dots$

$32 \div 8 = \dots\dots\dots$

$25 \div 5 = \dots\dots\dots$

$40 \div 4 = \dots\dots\dots$

$45 \div 9 = \dots\dots\dots$

$9 \div 1 = \dots\dots\dots$

$42 \div 6 = \dots\dots\dots$

$21 \div 3 = \dots\dots\dots$



Write the fact families for each set of numbers:

15

3

5

.....	.....	.....
.....	.....	.....
.....	.....	.....
.....	.....	.....

28

7

4

.....	.....	.....
.....	.....	.....
.....	.....	.....
.....	.....	.....

24

6

4

.....	.....	.....
.....	.....	.....
.....	.....	.....
.....	.....	.....

54

6

9

.....	.....	.....
.....	.....	.....
.....	.....	.....
.....	.....	.....



Match the equal products:

$3 \times 4$

$6 \times 4$

$4 \times 4$

$6 \times 3$

$3 \times 8$

$2 \times 6$

$2 \times 9$

$2 \times 8$



Compare using ( $<$ ,  $>$  or  $=$ ):

$5 \times 3 \quad \text{.....} \quad 5 \times 4$

$8 \times 9 \quad \text{.....} \quad 6 \times 9$

$6 \times 3 \quad \text{.....} \quad 3 \times 6$

$3 \times 7 \quad \text{.....} \quad 5 \times 8$

$9 \times 4 \quad \text{.....} \quad 4 \times 9$

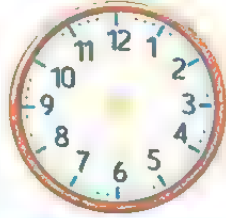
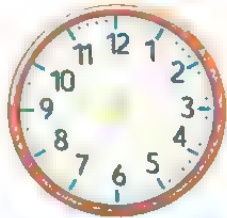
$4 + 4 + 4 \quad \text{.....} \quad 4 \times 3$

$7 \times 6 \quad \text{.....} \quad 8 \times 6$

$24 \div 3 \quad \text{.....} \quad 16 \div 4$



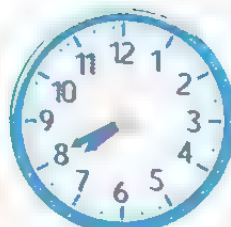
Draw the clock hands to show the time:



# Review



Match the clock to the suitable time:



0 4 0 5

1 1 0 0

0 7 4 0

0 9 5 0



Color the correct answer:

Twenty past five

0 5 : 3 0

0 5 : 2 0

0 5 : 1 5

Ten to eleven

1 0 : 5 0

1 1 : 1 0

1 1 : 5 0

Twenty to two

0 1 : 5 0

0 2 : 2 0

0 1 : 4 0

Twenty to five

0 4 : 4 0

0 4 : 3 0

0 4 : 4 5



Read and complete:

start of  
the party



Karim celebrated his  
birthday.

end of  
the party



Elapsed time is ..... hours



**Choose the correct answer:**

- One of the multiples of 6 ( 63 - 35 - 36 )
- One of the multiples of 9 ( 53 - 72 - 25 )
- One of the multiples of 3 ( 30 - 13 - 5 )
- One of the multiples of 11 ( 42 - 9 - 16 )



**Complete the multiples of the following numbers, then answer:**

The multiples of 9, 9, ....., 15, ....., ....., .....

The multiples of 10, ....., 30, ....., ....., .....

The multiples of 10, 10, ....., 20, ....., .....

The multiples of 4, 8, ....., ....., 20, ....., .....

The common multiples of 5 and 10 are ....., .....

The common multiples of 3 and 4 are ....., .....



Use the 120 chart to write the multiples of 3 that are between 10 and 40. ....



Use the 120 chart to write the common multiples of 2 and 3 that are less than 70. ....



## Review



There are 1 boxes of crayons. Each box has 3 crayons.  
What is the total number of the crayons? .....



There are 4 bunches of flowers. Each bunch has 5 flowers.  
What is the total number of the flowers? .....



Salma distributed 15 cookies equally in 3 plates. How many cookies were there in each plate?

No. of cookies = ..... cookies



Mazin has 10 books. He wanted to put them in 2 boxes. How many books will he put in each box?

No. of books = ..... books

# Chapter Four



- ✎ Lesson (31)      Polygons
- ✎ Lessons (32, 33)      Attributes of quadrilaterals
- ✎ Lessons (34, 35)      Area
- ✎ Lesson (36)      Creating rectangles with equal areas
- ✎ Lesson (37)      Strategies of measuring area
- ✎ Lessons (38-40)      Distributive property of multiplication

# Chapter Four Outcomes

## Lesson (31)

- Identify the attributes of two-dimensional shapes. - Define categories based on attributes.
- Sort two-dimensional shapes based on their attributes. - Define polygon and parallelogram.

## Lessons (32, 33)

- Describe the attributes of quadrilaterals.
- Apply rules to sort quadrilaterals. - Compare and contrast quadrilaterals.
- Combine quadrilaterals to create a picture. - Sort quadrilaterals using a Venn diagram.
- Create a bar graph representing quadrilaterals to create a picture.

## Lessons (34, 35)

- Use manipulatives to build rectangles with specified dimensions.
- Calculate the area of rectangles in square units.
- Determine the area of rectangles using strategies related to multiplication.

## Lesson (36)

- Create and describe multiple rectangles with the same area.
- Explain and model the commutative property of multiplication.

## Lesson (37)

- Define area in their own words. - Apply strategies to measure area.

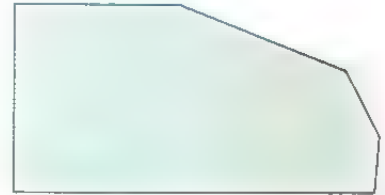
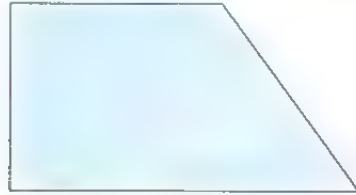
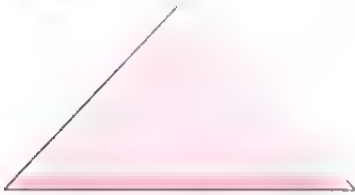
## Lessons (38-40)

- Divide arrays into smaller arrays to solve multiplication problems.
- Explain the Distributive property of multiplication.
- Explain why dividing arrays makes it easier to solve multiplication problems.
- Apply the Distributive property to solve multiplication problems.
- Model the Distributive property of multiplication using arrays.
- Reflect on understanding of multiplication and the Distributive Property of multiplication.
- Apply the Distributive property to solve multiplication problems.

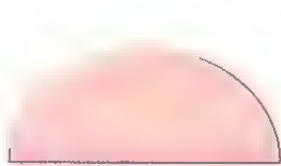
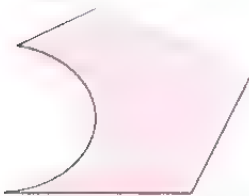
## Learn polygons



Examples for polygons:



These shapes are not polygons:



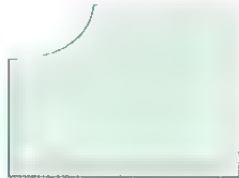
The **polygon** is a closed two-dimensional shape with three or more sides.



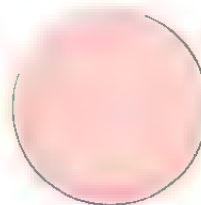
1 Tick (✓) below the polygon:



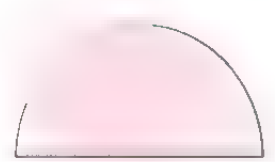
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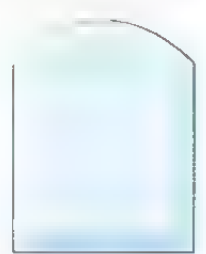
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# Lesson 31

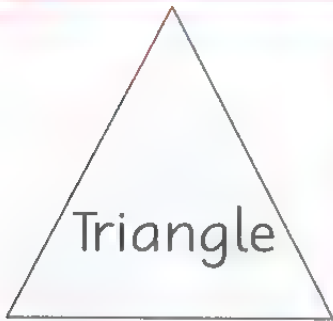
2 Complete the table and determine whether the shape is a polygon or not as the example:

Shape	Name	No. of sides	No. of vertices	Polygon
	Triangle	3	3	Yes
	.....	.....	.....	.....
	.....	.....	.....	.....
	.....	.....	.....	.....
	.....	.....	.....	.....
	.....	.....	.....	.....
	.....	.....	.....	.....
	.....	.....	.....	.....



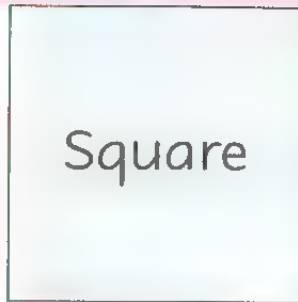


Complete:



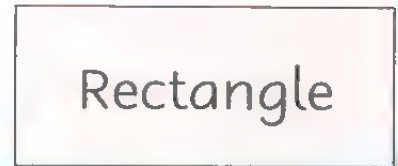
Triangle

..... vertices  
..... sides



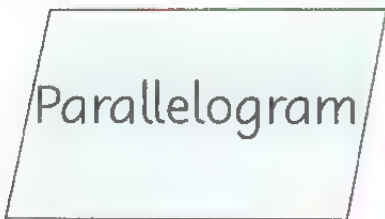
Square

..... vertices  
..... sides



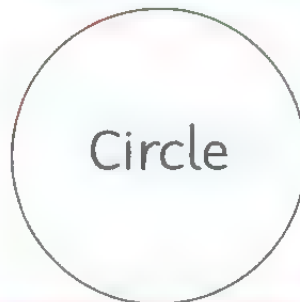
Rectangle

..... vertices  
..... sides



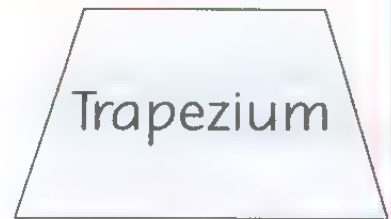
Parallelogram

..... vertices  
..... sides



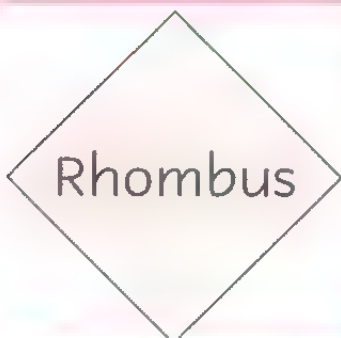
Circle

..... vertices  
..... sides



Trapezium

..... vertices  
..... sides



Rhombus

..... vertices  
..... sides



Pentagon

..... vertices  
..... sides



Hexagon

..... vertices  
..... sides

# Lesson 31

- 4 Write the name of the two-dimensional shape, then circle the similar shapes:



- 5 Read, write the name of each shape according to its attributes, then circle it:

This shape has 5 sides and 5 vertices

Name .....



This shape has no sides or vertices.

Name .....



This shape has 3 sides and 3 vertices.

Name .....



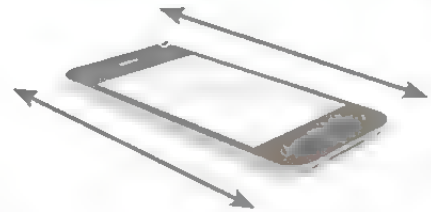
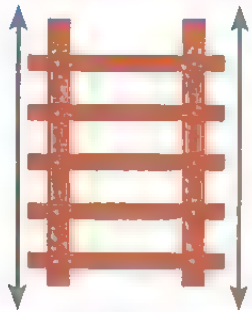
This shape has 6 sides and 6 vertices.

Name .....



# Two parallel lines

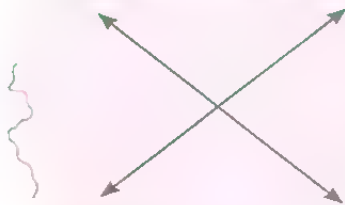
**Parallel lines** can go on forever and never intersect.



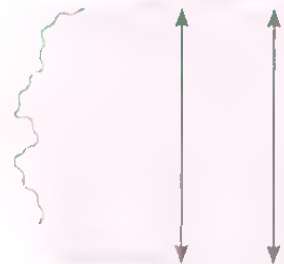
Color the correct answer as the example:



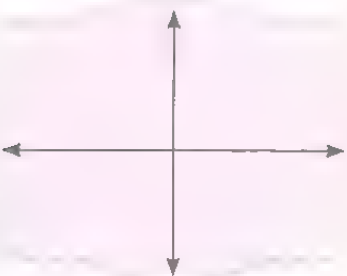
parallel not parallel



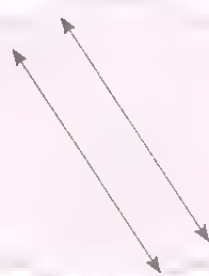
parallel not parallel



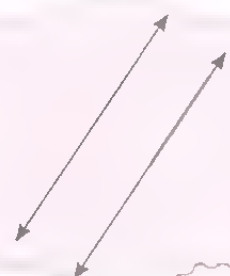
parallel not parallel



parallel not parallel



parallel not parallel



parallel not parallel

# Parallelogram

Parallelogram is a quadrilateral with opposite sides parallel.

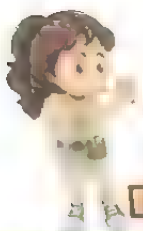


## Parallelogram attributes

- Each two opposite sides are parallel
- Each two opposite sides are equal in length.



Join the following dots to get a parallelogram:



The square, rectangle and rhombus are parallelogram.





2 Tick (✓) below the parallelogram:



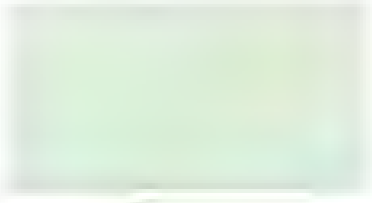
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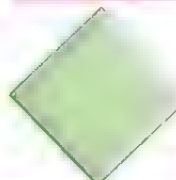


3 Write the name of each parallelogram:

1 .....

2 .....

3 .....





## Chapter (4) Lessons (32,33)

The quadrilateral: is a two-dimensional shape with 4 vertices and 4 sides.



Rectangle

The rectangle has 4 sides, two short equal and parallel sides and two long equal and parallel sides.

The square

has 4 vertices, 4 equal sides. Each opposite sides are parallel.

Parallelogram

The parallelogram has 4 vertices and 4 sides. Each two opposite sides are parallel and equal.

Rhombus

The rhombus

has 4 vertices, 4 equal sides. Each two opposite sides are parallel.


Trapezium

The Trapezium has 4 vertices with only two parallel sides.





## 1 Complete:

- 1- All shapes that have 4 vertices and 4 sides are called .....
- 2 The shape that has four equal sides and not a square is .....
- 3- The shape with only 2 parallel sides is .....
- 4- The shape with 2 short equal sides and 2 long equal sides is .....
- 5- The trapezium is a quadrilateral with ..... sides and ..... vertices.
- 6- The number of sides of ..... is .....
- 7- Any shape formed of 3 sides or more is .....
- 8 The rectangle and square are ..... dimensional shapes.
- 9- The shape  has ..... vertices.



## 2 Complete using (✓) or (×):

Name of the shapes	Each two opposite sides are parallel	All sides are equal	Each two opposite sides are equal in length
Rhombus			
Rectangle			
Parallelogram			
Square			

## Lessons 32,33



Color as required:

All sides are equal in length



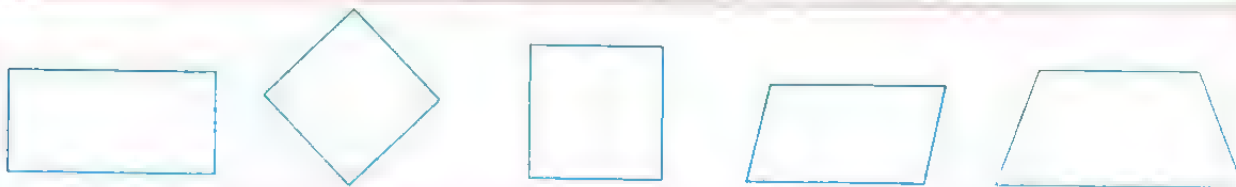
Only two sides are parallel



Each two opposite sides are equal in length



Each two opposite sides are parallel and equal in length

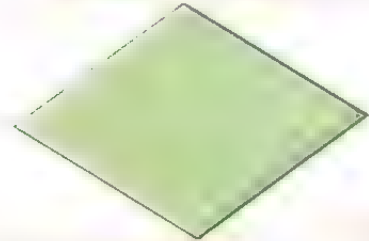


Each two opposite sides are parallel and all sides are equal in length.



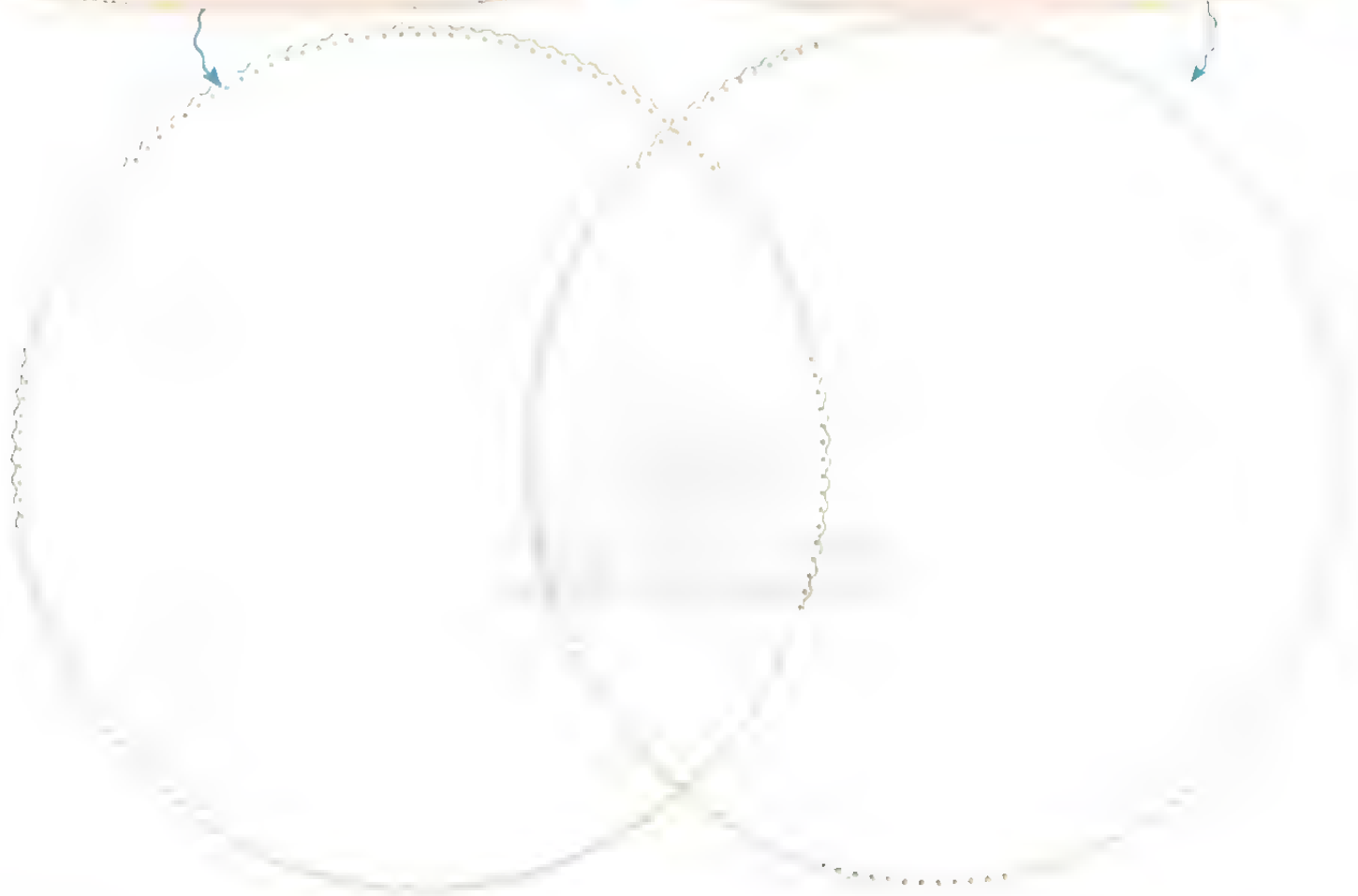


Use Venn diagram to classify the following shapes:



Each two opposite sides  
are equal in length

Four equal sides



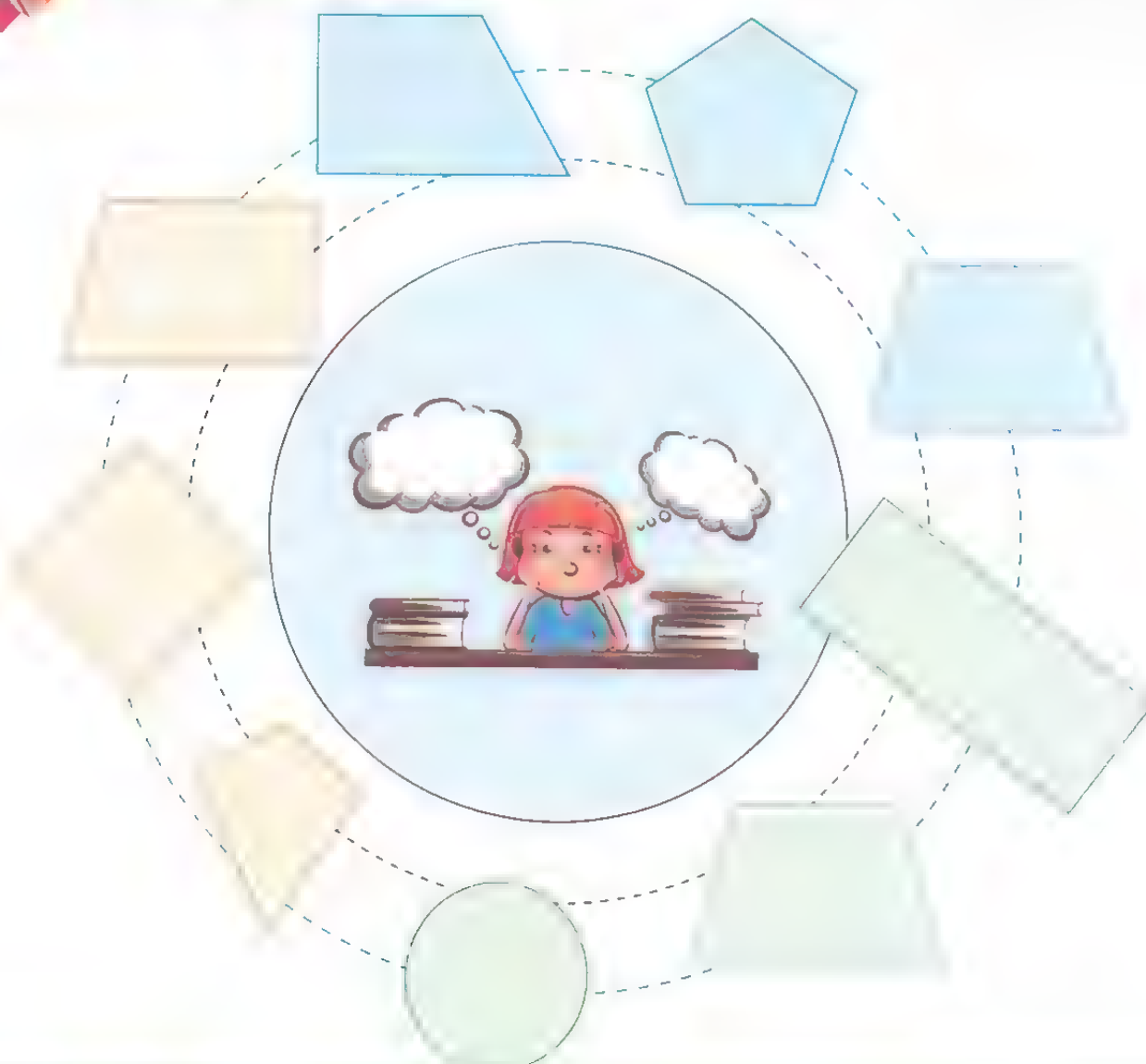
# Trapezium



**Trapezium** is a quadrilateral with 2 parallel sides and 2 non-parallel sides.



1 Circle the trapezium:







Color each shape, its name and its attributes in the same color:



Square

a quadrilateral that has only one pair of parallel sides.



Rectangle

a quadrilateral that has 2 long equal sides and 2 short equal sides



Trapezium

a shape with no sides or vertices



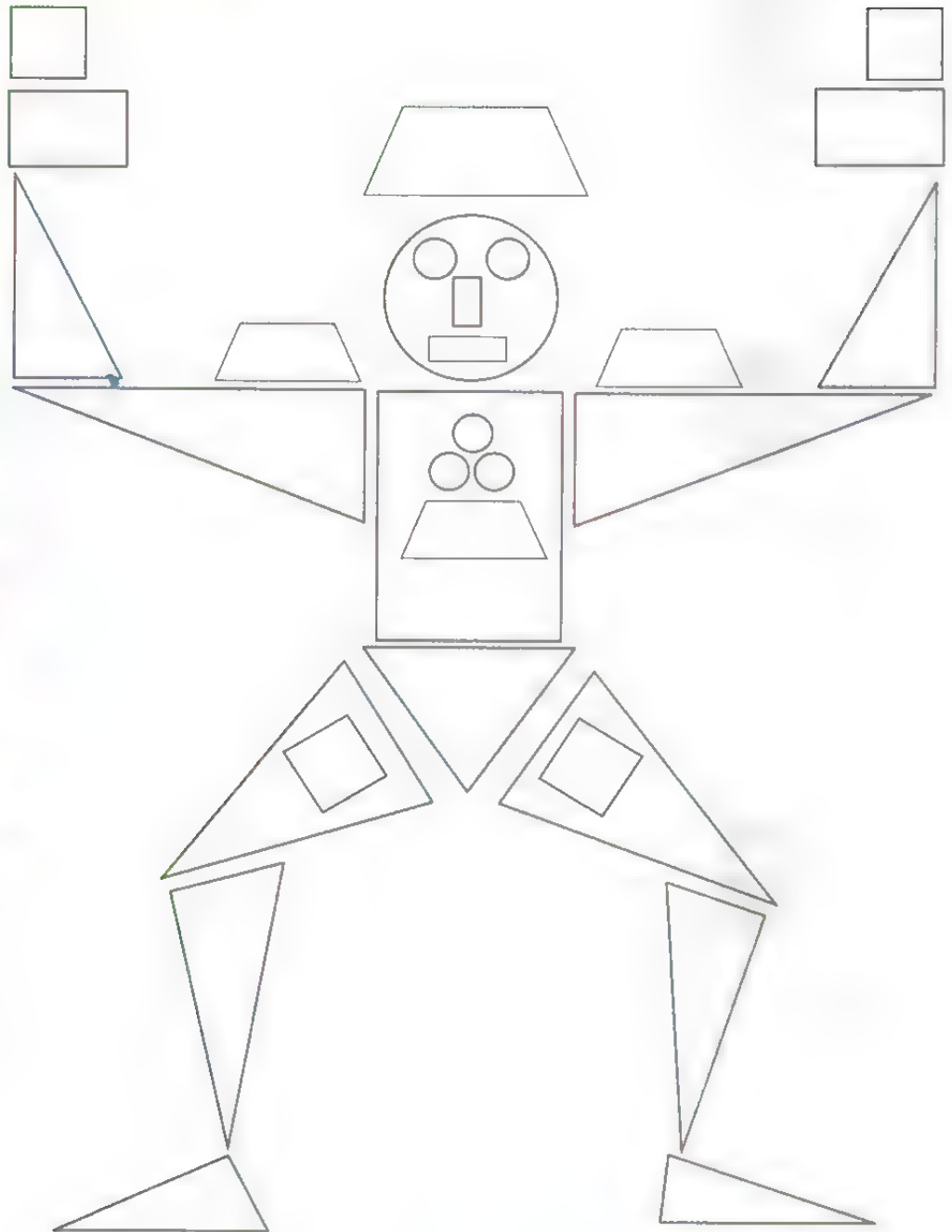
Circle

a quadrilateral with 4 equal sides

# Lessons 32,33



Color using the code:

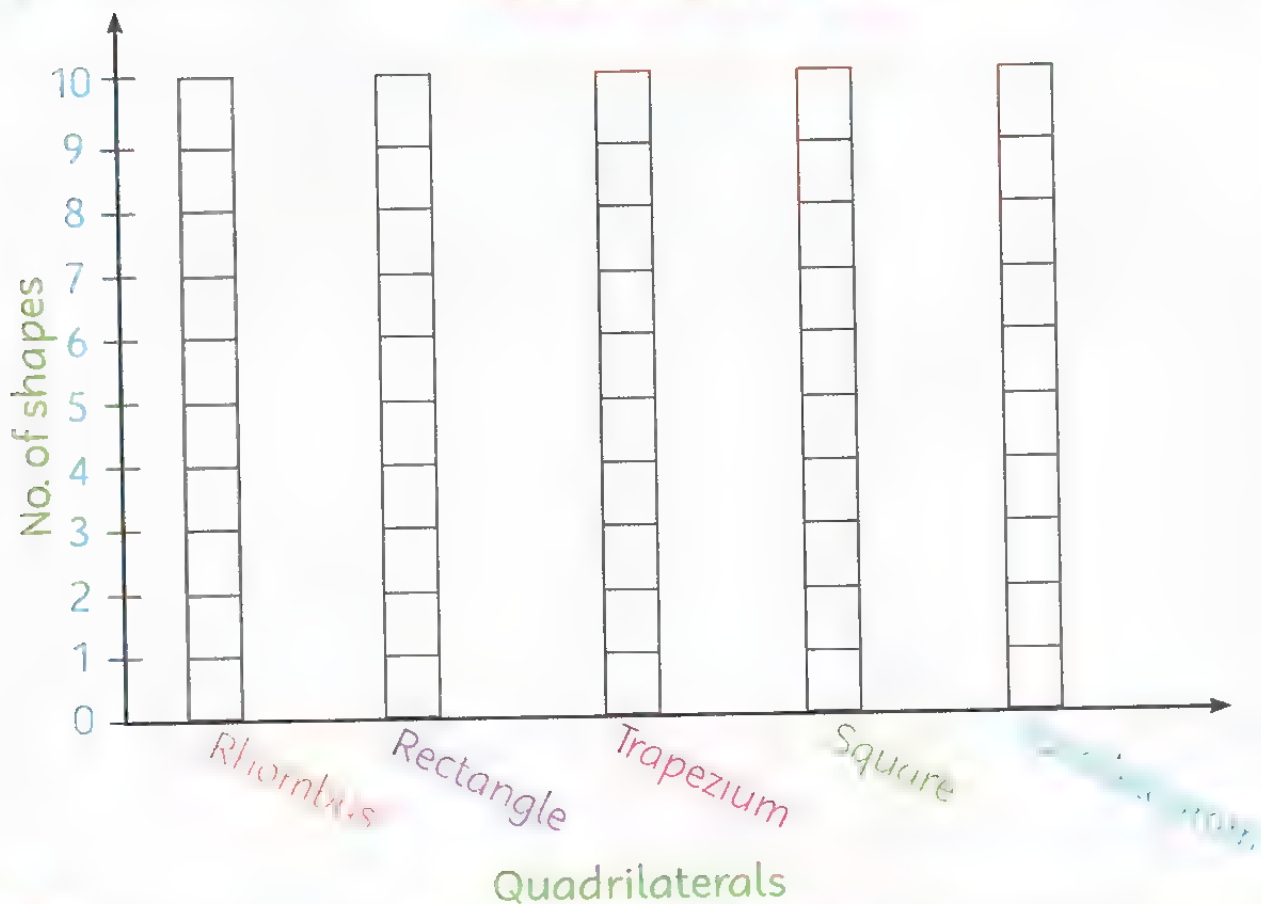




Represent number of quadrilaterals on the bar graph:



## Quadrilaterals



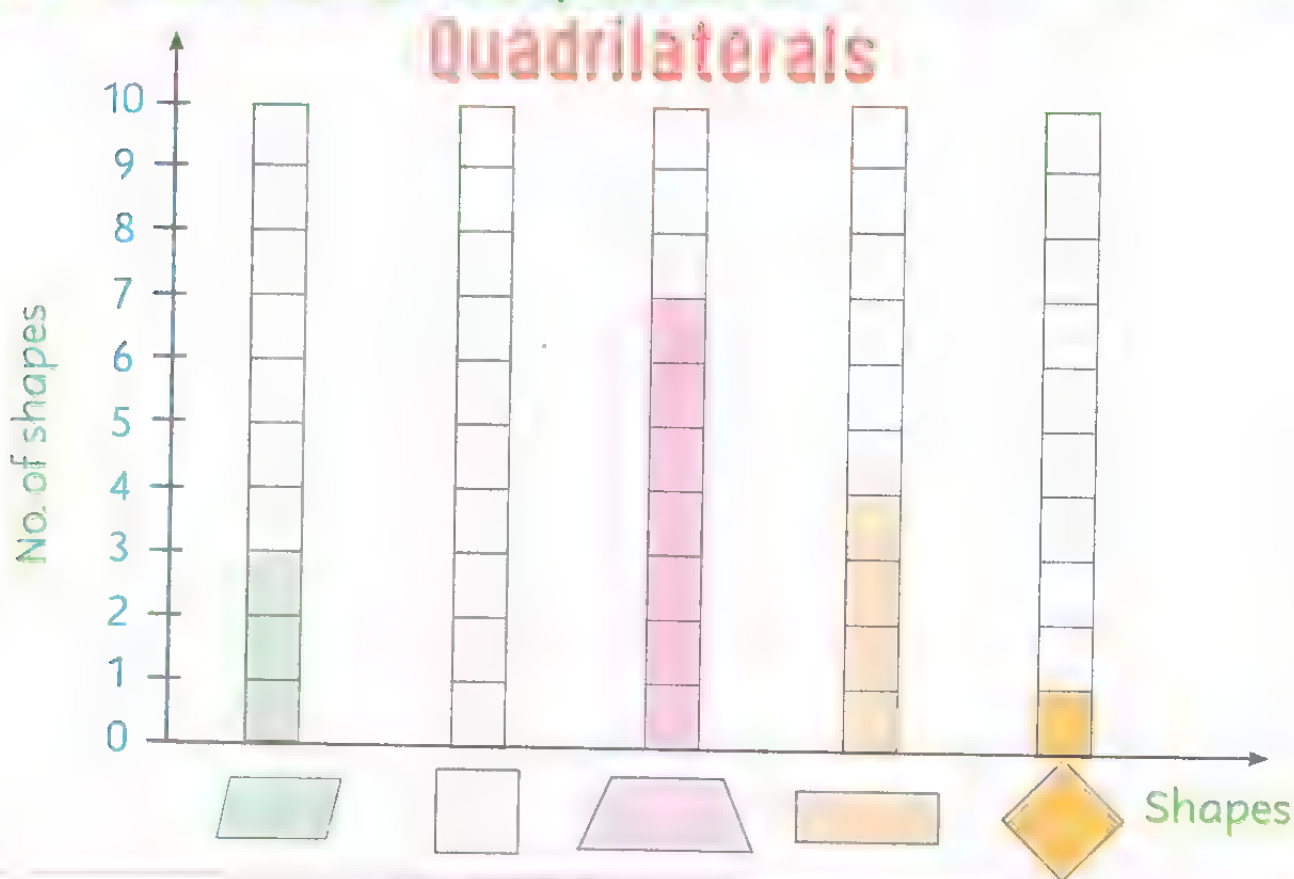
Which shape has the greatest number? .....

Which shape has the smallest number? .....

# Lessons 32-33



Complete the following table using the bar graph, then answer the questions:



Shape		Number
Rectangle		
Parallelogram		
Square		
Trapezium		
Rhombus		

\* The most frequent shape is \_\_\_\_\_

\* The least frequent shape is \_\_\_\_\_

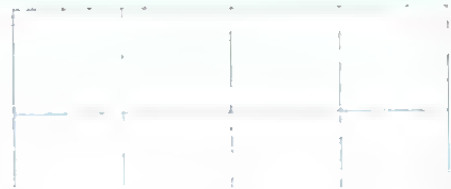
The difference between the most frequent and the least frequent shapes is \_\_\_\_\_

Chapter (4)  
Lessons  
(34,35)

# Area

**Area** is the number of square units needed to cover a surface.

1	2	3	4
5	6	7	8
9	10	11	12



No. of squares = 12      Area = No. of rows  $\times$  No. of columns  
Area =  $3 \times 4 = 12$  square units



1 Calculate the area of each shape:

Area =  $\dots \times \dots = \dots$  square units      Area =  $\dots \times \dots = \dots$  square units

Area =  $\dots \times \dots = \dots$  square units      Area =  $\dots \times \dots = \dots$  square units



I learnt to find the area of arrays.



## Lessons 34,35



Calculate the area of rectangles in square units:

Shape (1)

Shape (2)

Shape (3)

Shape (4)

Shape (5)

Shape (6)

Area of shape ( ) = ..... square units.

Area of shape ( ) = ..... square units.

Area of shape ( ) = ..... square units.

Area of shape ( ) = ..... square units.

Area of shape ( ) = ..... square units.

Area of shape ( ) = ..... square units.



Calculate the area of the following arrays as the example:



The area =  $3 \times 5 = 15$

The area =  $\quad \times \quad = \quad$

The area =  $\quad \times \quad = \quad$

The area =  $\quad \times \quad = \quad$

The area =  $\quad \times \quad = \quad$

## Lessons 34,35



4 Calculate the area of the following rectangles:

No. of rows = 3

No. of columns = 7

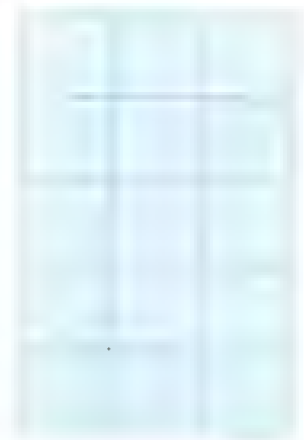
The area = ..... X .....  
= ..... square units



No. of rows = .....

No. of columns = .....

The area = ..... X .....  
= ..... square units



No. of rows = .....

No. of columns = .....

The area = ..... X .....  
= ..... square units



No. of rows = .....

No. of columns = .....

The area = ..... X .....  
= ..... square units





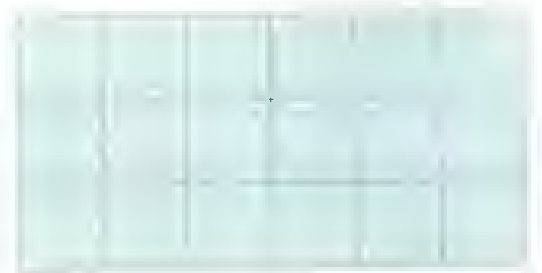
Calculate the area of the following shapes:



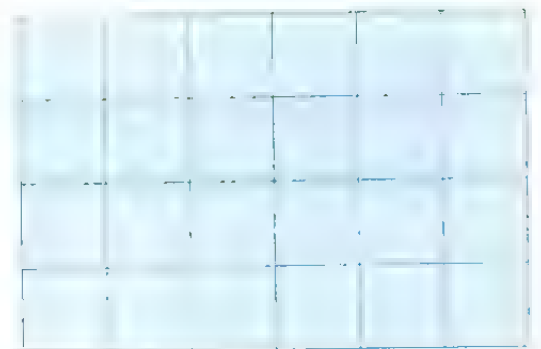
Area = .....



Area = .....



Area = .....



## Lessons 34,35



Answer the following questions:

Create a garden to plant corn. The garden has 5 rows with 4 square units in each row. How much corn in the garden? What is the area of the garden? Each corn needs 1 square unit of space.

No. of corn plants = .....

Area of the garden = ..... square units



A garden consisting of a group of trees, 6 columns and 4 rows. Calculate the number of trees in the garden. What is the area of the garden? Each tree represents one square unit.

No. of trees = ..... trees

Area of the garden = ..... X ..... square units

A rectangle consisting of 4 rows of square units and 3 columns of square units. Calculate the area of the rectangle in square units.

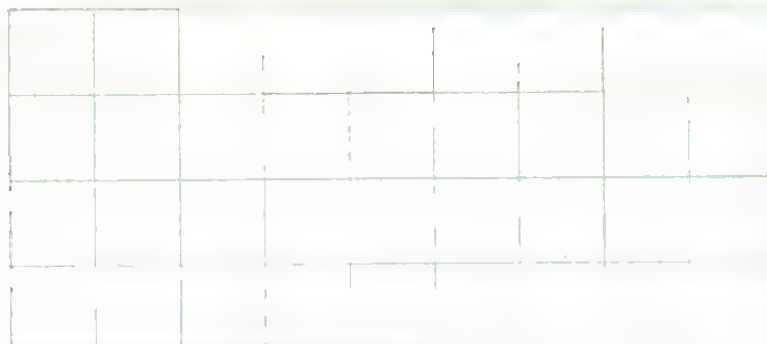
Area of the rectangle = ..... X ..... square units





7 Draw rectangles on the grid using the required dimensions:

A rectangle with dimensions of 5 units and 3 units.



A rectangle with dimensions of 7 units and 4 units.

A rectangle with dimensions of 6 units and 2 units.



# Chapter (4)

## Lesson

### (36)



No. of rows = .....

No. of columns = .....

No. of square units

= ..... 



No. of rows = .....

No. of columns = .....

No. of square units

= ..... 

$$3 \times 4 = 4 \times \dots = \dots$$

The property used in the previous multiplication sentence is .....



Each rectangle has 12 square units, but they are not the same in shape.

Shapes maybe different but still have the same area.





**Complete:**

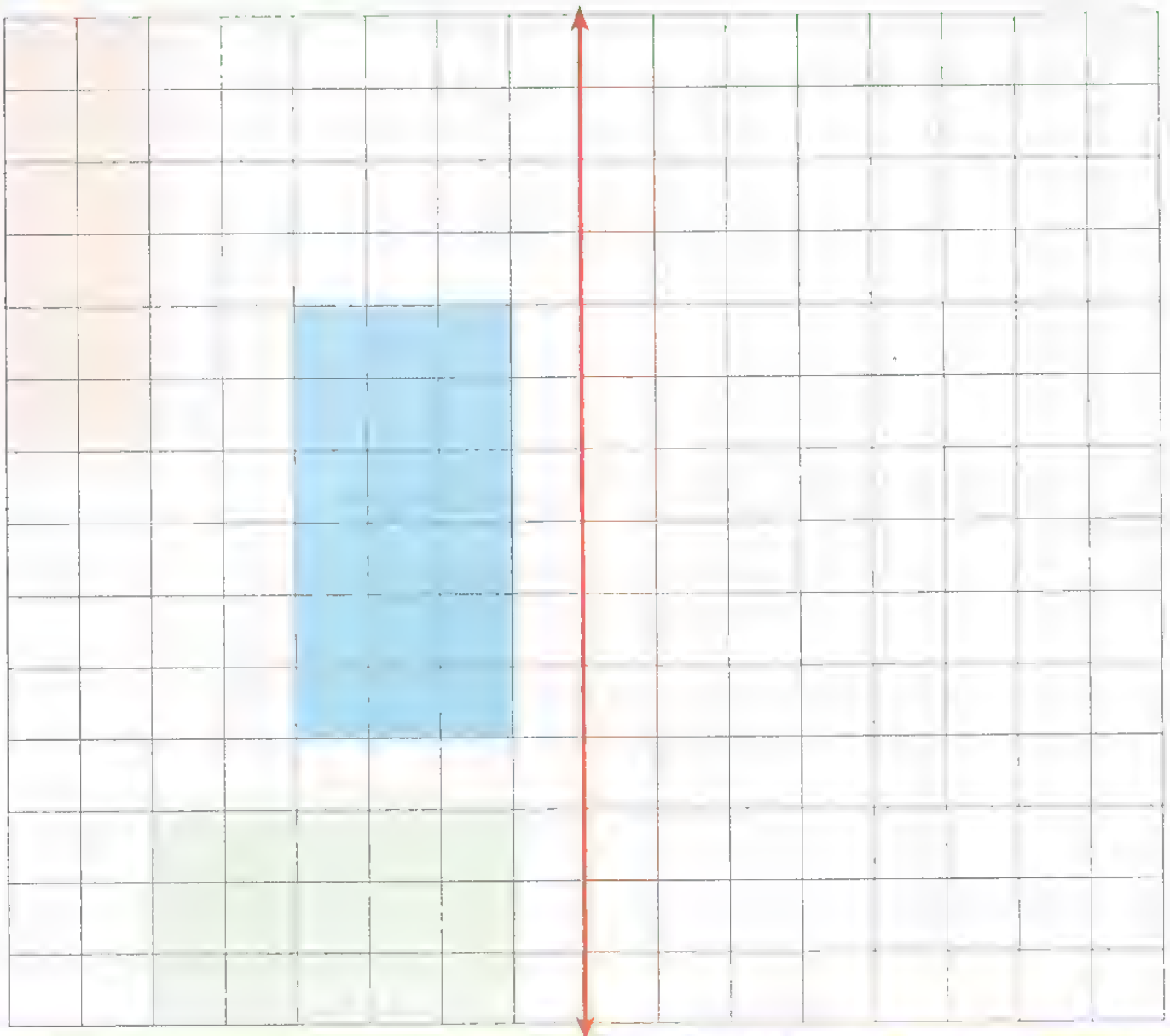
The area of rectangle  $(4 \times 3)$  = The area of rectangle  $(3 \times \dots)$

The area of rectangle  $(5 \times 2)$  = The area of rectangle  $(\dots \times 5)$

The area of rectangle  $(\dots \times 6)$  = The area of rectangle  $(\dots \times 5)$



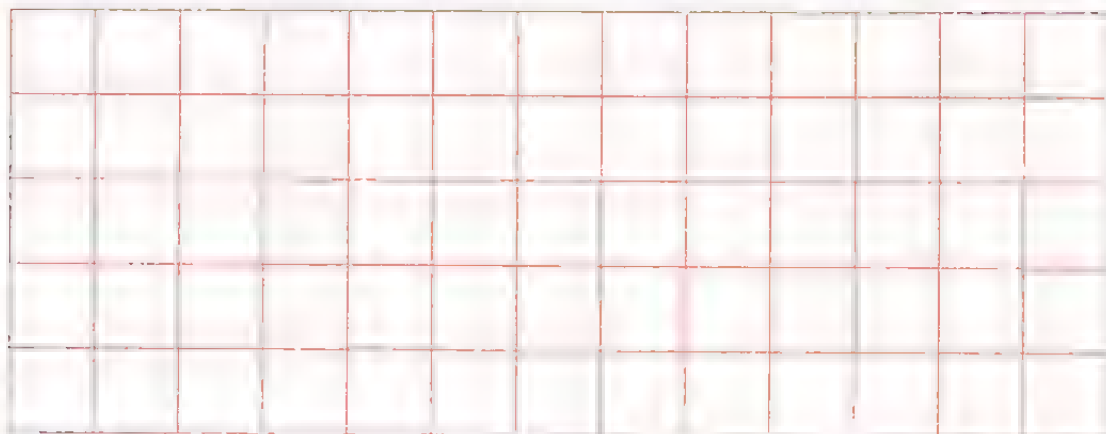
**Draw the shapes with the same area on the other side of the grid:**



# Lesson 30



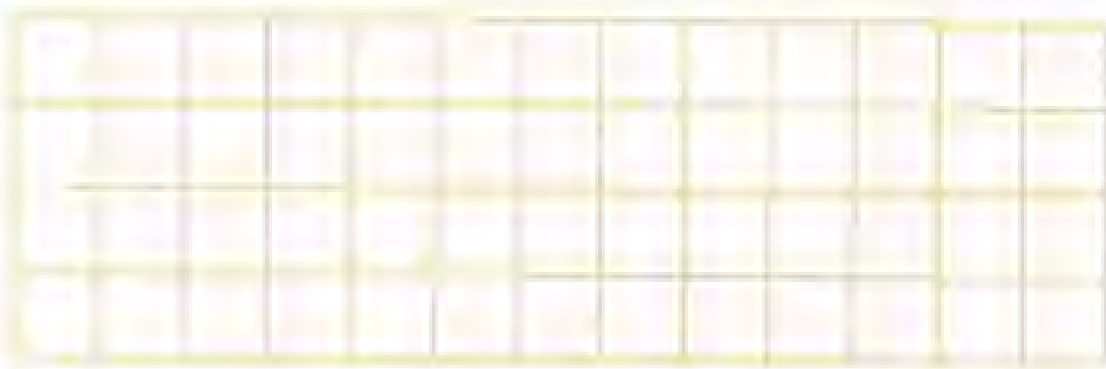
Draw an array to find the product of  $4 \times 8$  :



$$4 \times 8 = \dots\dots\dots$$



Check using the array that  $3 \times 4 = 12$  on the grid:



Calculate the area of the rectangle:



Area of rectangle =  $\dots\dots\dots \times \dots\dots\dots = \dots\dots\dots$  square units

Chapter (4)  
Lesson  
(37)

# Strategies of measuring area

To calculate the area of the rectangle, we should know the two dimensions through the number of rows and columns

No. of rows = 5      No. of columns = 4



The area of rectangle =  $5 \times 4 = 20$

## Notice

No. of rows and columns represent the two dimensions of the rectangle.

No. of horizontal squares represent the first dimension.

No. of vertical squares represent the second dimension.



1 Calculate the area of the rectangle using square units:

The first dimension = .....

The second dimension = .....

The area of rectangle = .....  $\times$  .....

= .....



The first dimension = .....

The second dimension = .....

The area of rectangle = .....  $\times$  .....

= .....



- I learnt strategies to calculate the area of the array.



# Lesson 37



2 Calculate the area of the following shapes:

The area = ..... X ..... = .....



The area = ..... X ..... = .....



The area = ..... X ..... = .....



The area = ..... X ..... = .....





Calculate the area of the following shapes:



shape (1)



shape (2)



shape (3)



shape (4)



shape (5)



shape (6)

Shape	Area
-------	------

(1)	___ X ___ = ___
-----	-----------------

(2)	___ X ___ = ___
-----	-----------------

(3)	___ X ___ = ___
-----	-----------------

Shape	Area
-------	------

(4)	___ X ___ = ___
-----	-----------------

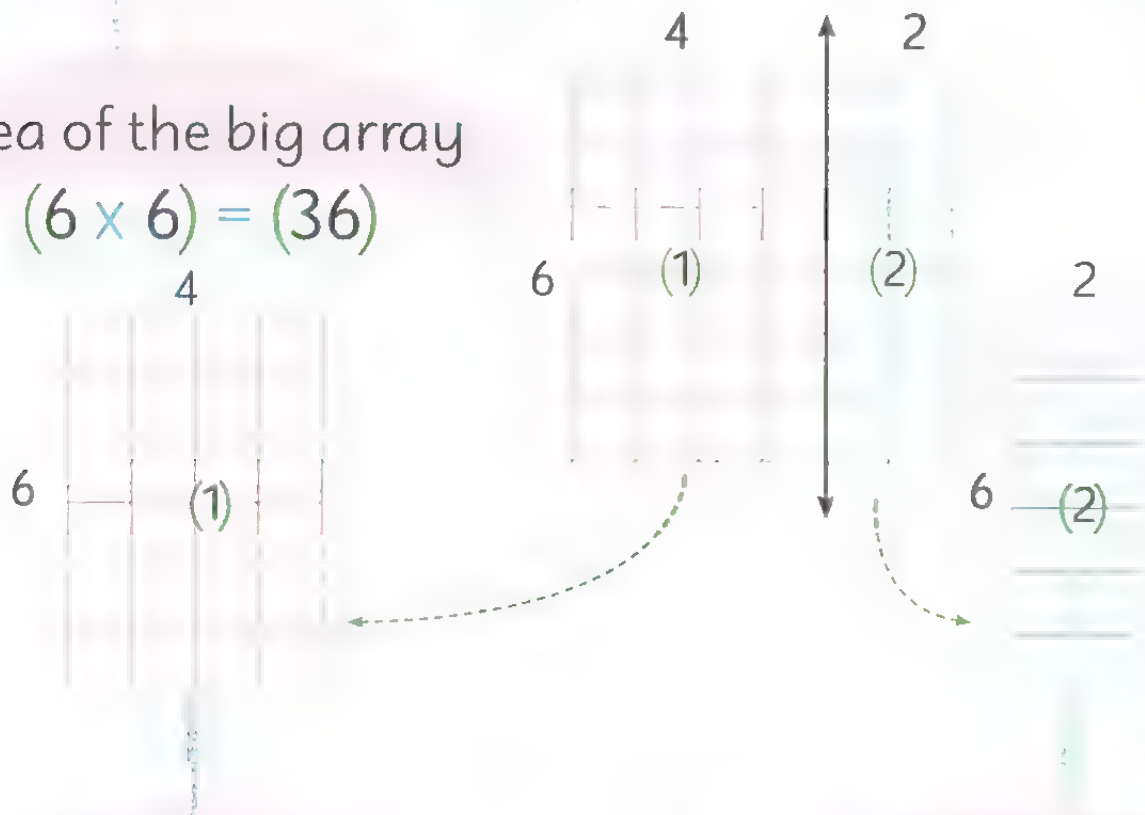
(5)	___ X ___ = ___
-----	-----------------

(6)	___ X ___ = ___
-----	-----------------

You have  $(6 \times 6)$  array as shown, you can divide it into two arrays.

Area of the big array

$$(6 \times 6) = (36)$$



Area of the array

$$(6 \times 4) = 24$$

Area of the array

$$(6 \times 2) = 12$$

The total area of the two arrays =  $24 + 12 = 36$  square units

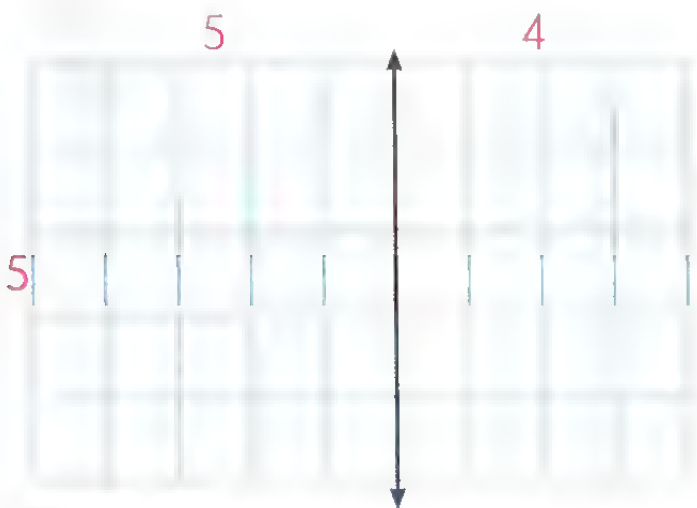
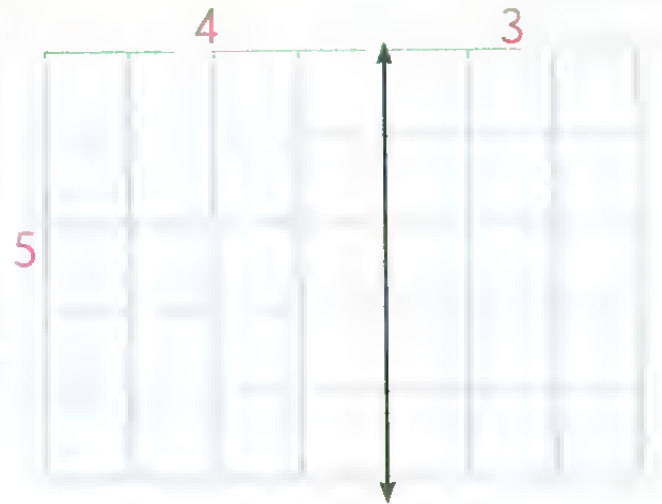
This is called distributive property.  
If it is difficult to find the area of the shape, you can divide it into smaller areas to find its area easily.





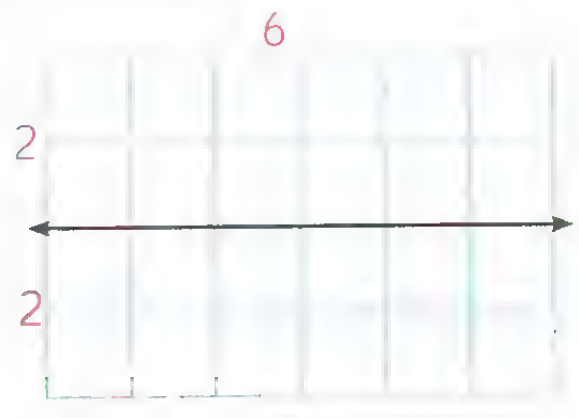
1 Calculate the area of the following arrays using the distributive property:

The area of the array =  
 $(\dots \times \dots) + (\dots \times \dots)$   
 $= \dots + \dots = \dots$  square units  
 $5 \times 7 = \dots$

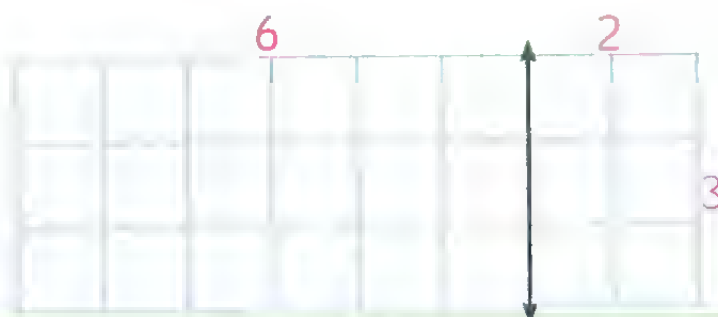


The area of the array  
 $= (\dots \times \dots) + (\dots \times \dots)$   
 $= \dots + \dots$   
 $= \dots$  square units  
 $5 \times 9 = \dots$

The area of the array  
 $= (\dots \times \dots) + (\dots \times \dots)$   
 $= \dots + \dots$   
 $= \dots$  square units  
 $4 \times 6 = \dots$



The area of the array  
 $= (\dots \times \dots) + (\dots \times \dots)$   
 $= \dots + \dots$   
 $= \dots$  square units  
 $3 \times 8 = \dots$



## Lessons 38-40



Find the missing numbers to find the product:

$$9 \times 5 = (9 \times \dots\dots\dots) + (9 \times \dots\dots\dots) \\ \dots\dots\dots + \dots\dots\dots = \dots\dots\dots$$

$$9 \times 8 = (9 \times \dots\dots\dots) + (9 \times \dots\dots\dots) \\ = \dots\dots\dots + \dots\dots\dots = \dots\dots\dots$$

$$6 \times 12 = (\dots\dots\dots \times 9) + (\dots\dots\dots \times 3) \\ \dots\dots\dots + \dots\dots\dots = \dots\dots\dots$$



Complete by writing the missing number as the example:

$$(4 \times 2) + (4 \times 3) = 4 \times \dots\dots\dots 5 \dots\dots\dots = \dots\dots\dots 20$$

$$(5 \times 7) + (5 \times 2) = 5 \times \dots\dots\dots = \dots\dots\dots$$

$$(6 \times 4) + (6 \times 6) = 6 \times \dots\dots\dots = \dots\dots\dots$$

$$(8 \times 2) + (8 \times 3) = 8 \times \dots\dots\dots = \dots\dots\dots$$

$$(9 \times 9) + (9 \times 1) = \dots\dots\dots \times 10 = \dots\dots\dots$$

$$(8 \times 7) + (8 \times 1) = \dots\dots\dots \times 8 = \dots\dots\dots$$

$$(2 \times 2) + (2 \times 2) = 2 \times \dots\dots\dots = \dots\dots\dots$$

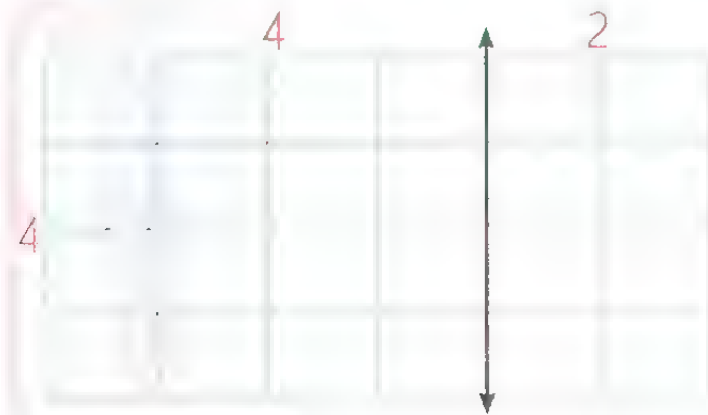
$$(10 \times 3) + (10 \times 4) = 10 \times \dots\dots\dots = \dots\dots\dots$$

$$(6 \times 9) + (6 \times 1) = \dots\dots\dots \times 10 = \dots\dots\dots$$





Using distributive property, find the multiplication product of the array:

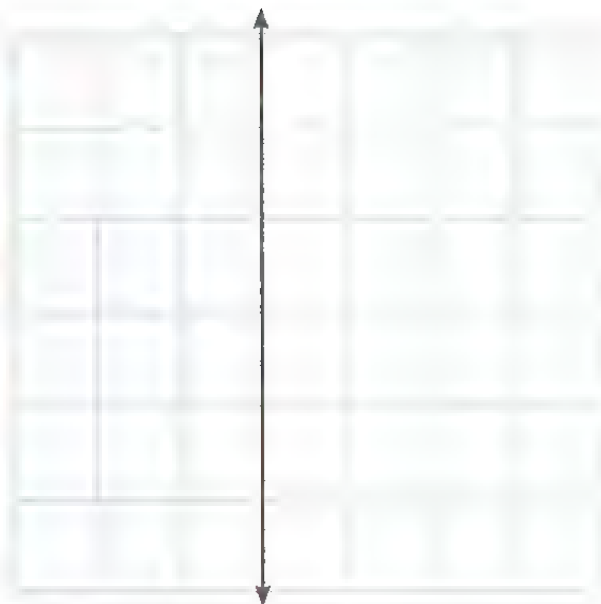


$$4 \times 4 = 16$$

$$4 \times 2 = 8$$

$$16 + 8 = 24$$

$$4 \times 6 = 24$$

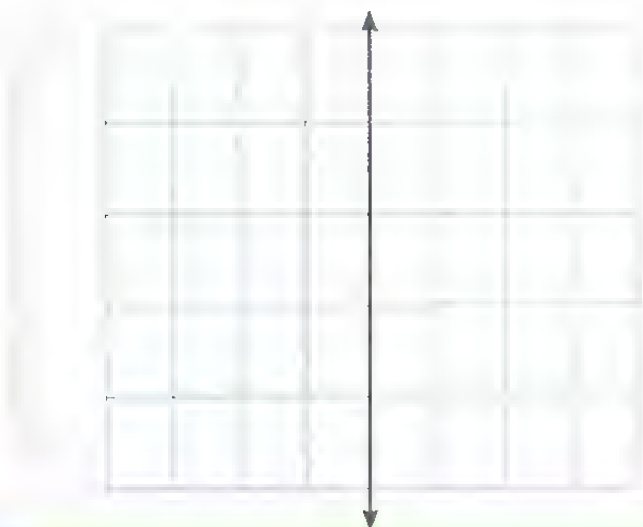


$$\dots \times \dots = \dots$$

$$\dots \times \dots = \dots$$

$$\dots + \dots = \dots$$

$$\dots \times \dots = \dots$$



$$\dots \times \dots = \dots$$

$$\dots \times \dots = \dots$$

$$\dots + \dots = \dots$$

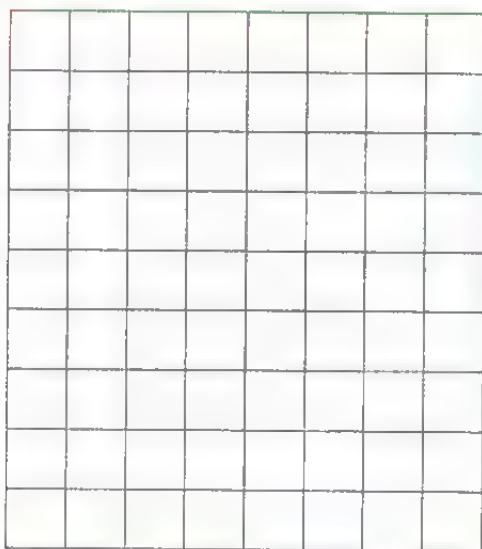
$$\dots \times \dots = \dots$$



# Lessons 38-40



5 Break apart the array according to the distributive property:



$$\begin{array}{l} \times = \\ \times = \\ + = \\ \times = \end{array}$$



6 Use the distributive property to find the result:

$$2 \times 4$$

$$(2 \times \dots) + (2 \times \dots)$$

$$(\dots) + (\dots) = \dots$$

$$4 \times 9$$

$$(4 \times \dots) + (4 \times \dots)$$

$$(\dots) + (\dots) = \dots$$

$$3 \times 8$$

$$(3 \times \dots) + (3 \times \dots)$$

$$(\dots) + (\dots) = \dots$$

$$7 \times 8$$

$$(7 \times \dots) + (7 \times \dots)$$

$$(\dots) + (\dots) = \dots$$

$$5 \times 3$$

$$(5 \times \dots) + (5 \times \dots)$$

$$(\dots) + (\dots) = \dots$$

$$5 \times 6$$

$$(5 \times \dots) + (5 \times \dots)$$

$$(\dots) + (\dots) = \dots$$



Find the product using distributive property in two different ways:

First way

$$3 \times 8$$

Second way

$$(\text{.....} \times \text{.....}) + (\text{.....} \times \text{.....})$$

$$(\text{.....} \times \text{.....}) + (\text{.....} \times \text{.....})$$

$$\square + \square = \square$$

$$\square + \square = \square$$

First way

$$7 \times 5$$

Second way

$$(\text{.....} \times \text{.....}) + (\text{.....} \times \text{.....})$$

$$(\text{.....} \times \text{.....}) + (\text{.....} \times \text{.....})$$

$$\square + \square = \square$$

$$\square + \square = \square$$

First way

$$7 \times 7$$

Second way

$$(\text{.....} \times \text{.....}) + (\text{.....} \times \text{.....})$$

$$(\text{.....} \times \text{.....}) + (\text{.....} \times \text{.....})$$

$$\square + \square = \square$$

$$\square + \square = \square$$

First way

$$7 \times 6$$

Second way

$$(\text{.....} \times \text{.....}) + (\text{.....} \times \text{.....})$$

$$(\text{.....} \times \text{.....}) + (\text{.....} \times \text{.....})$$

$$\square + \square = \square$$

$$\square + \square = \square$$

# Review on Chapter Four

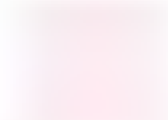


Write the name of each shape:



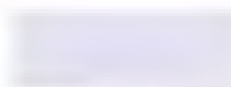
Circle the shape as required and write its name:

It has 4 equal sides



Name \_\_\_\_\_

It has two long equal sides and two short equal sides.



Name \_\_\_\_\_

It has two parallel unequal sides.



Name \_\_\_\_\_



Calculate the area of each shape:



=  $\times$  = square units



Area =  $\times$  = square units



=  $\times$  = square units



=  $\times$  = square units



Area =  $\times$  = square units



Area =  $\times$  = square units



## Review



Find the multiplication product of  $3 \times 9$  on the grid:

$$3 \times 9 = \underline{\hspace{2cm}}$$



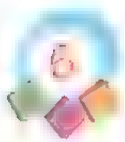

Complete to find the product:

$$6 \times 19$$

$$\begin{aligned} &= 6 \times (9 + \underline{\hspace{1cm}}) \\ &= 6 \times \underline{\hspace{1cm}} + 6 \times \underline{\hspace{1cm}} \\ &= \underline{\hspace{1cm}} + \underline{\hspace{1cm}} = \underline{\hspace{1cm}} \end{aligned}$$

$$7 \times 14$$

$$\begin{aligned} &= 7 \times (\underline{\hspace{1cm}} + 10) \\ &= 7 \times \underline{\hspace{1cm}} + 7 \times \underline{\hspace{1cm}} \\ &= \underline{\hspace{1cm}} + \underline{\hspace{1cm}} = \underline{\hspace{1cm}} \end{aligned}$$



Complete:

Area of rectangle ( $\underline{\hspace{1cm}} \times 6$ ) – Area of rectangle ( $\underline{\hspace{1cm}} \times 5$ )

$$(4 + 5) \times 10 = (4 \times \underline{\hspace{1cm}}) + (5 \times \underline{\hspace{1cm}}) = \underline{\hspace{1cm}} + \underline{\hspace{1cm}} = \underline{\hspace{1cm}}$$

$$(6 + 3) \times 8 = (\underline{\hspace{1cm}} \times \underline{\hspace{1cm}}) + (\underline{\hspace{1cm}} \times \underline{\hspace{1cm}}) = \underline{\hspace{1cm}} + \underline{\hspace{1cm}} = \underline{\hspace{1cm}}$$

# Chapter Five



- Lessons (41, 42) Perimeter of polygons
- Lesson (43) Estimating the perimeters of polygons in centimeters
- Lessons (44, 45) Perimeter and area
- Lesson (46) Applying a variety of strategies to solve area problems
- Lesson (47) Constructing different rectangles with the same area
- Lesson (48) Constructing different rectangles with the same perimeter
- Lesson (49) Perimeter and area story problems
- Lesson (50) Multiplying by 10 and multiples of 10

# Chapter Five Outcomes

## Lessons (40, 41)

- Measure the lengths of sides of polygons in centimeters.
- Define perimeter.
- Calculate the perimeter of polygons in centimeters.
- Explain why perimeter is a linear measurement.
- Distinguish between polygons and non-polygons.
- Describe practical applications for measuring perimeter.

## Lesson (43)

- Estimate the perimeters of polygons in centimeters.
- Measure the lengths of sides of polygons in centimeters.
- Calculate the perimeter of polygons in centimeters.
- Explain how to calculate perimeter of polygons.

## Lessons (44, 45)

- Explain the difference between perimeter and area.
- Calculate the perimeter and area of given arrays with some units missing.
- Explain why area is not a linear measurement.
- Calculate the area of a rectangle given only the length and width.
- Describe the problem solving strategies they used to solve area problems.

## Lesson (46)

- Apply a variety of strategies to solve area problems.
- Explain the strategies they used to solve area problems.

## Lesson (47)

- Construct different rectangles with the same area.
- Compare the areas of rectangles with the same perimeters but different dimensions.

## Lesson (48)

- Construct different rectangles with the same perimeter.
- Compare the areas of rectangles with the same perimeters but different dimensions.

## Lesson (49)

- Apply strategies to solve real world and perimeter problems.
- Apply their understanding of area and perimeter to write story problems.

## Lesson (50)

- Multiply by 10 and multiples of 10.
- Identify and explain patterns observed when multiplying by 10s.

# Chapter (5) Lessons (41,42)

## Perimeter of polygons

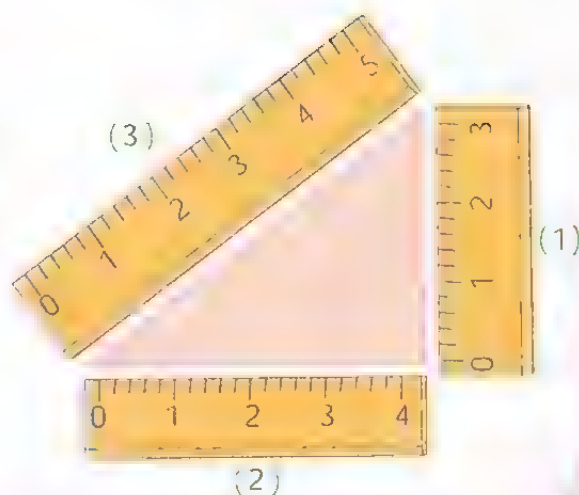
Measure each side. Add to find the total.

The length of side (1) = 3 cm

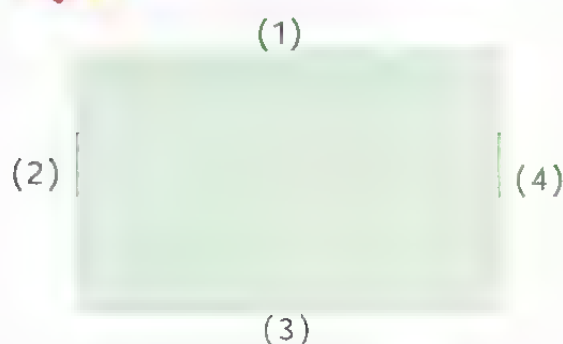
The length of side (2) = 4 cm

The length of side (3) = 5 cm

The total =  $3 + 4 + 5 = 12$  cm



Measure each side and find the total as the previous example:



side (1) = .....cm

side (2) = .....cm

side (3) = .....cm

side (4) = .....cm

The total =

..... + ..... + ..... + ..... = .....cm



side (1) = .....cm

side (2) = .....cm

side (3) = .....cm

side (4) = .....cm

The total =

..... + ..... + ..... + ..... = .....cm



I learnt to measure side lengths of a polygon and find their total.

# Lessons 41, 42



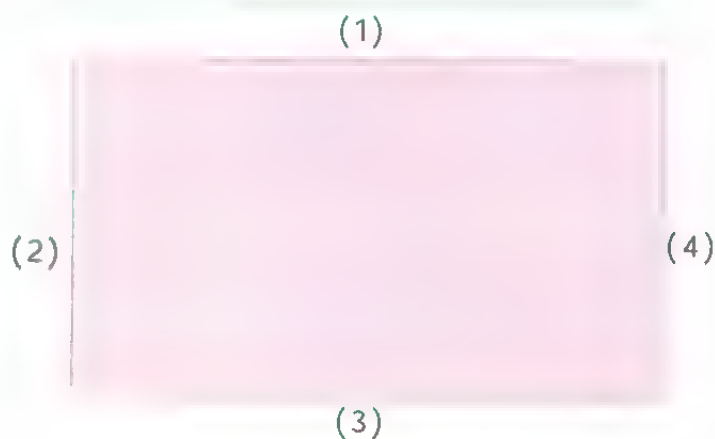
Find the total length of all sides of the following shapes:

side (1) = .....cm

side (2) = .....cm

side (3) = .....cm

side (4) = .....cm



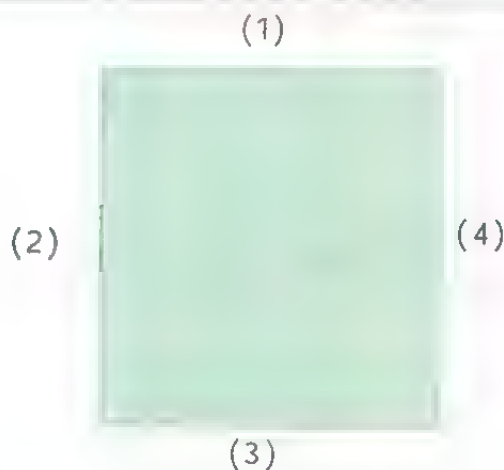
The total = ..... = .....cm

side (1) = .....cm

side (2) = .....cm

side (3) = .....cm

side (4) = .....cm



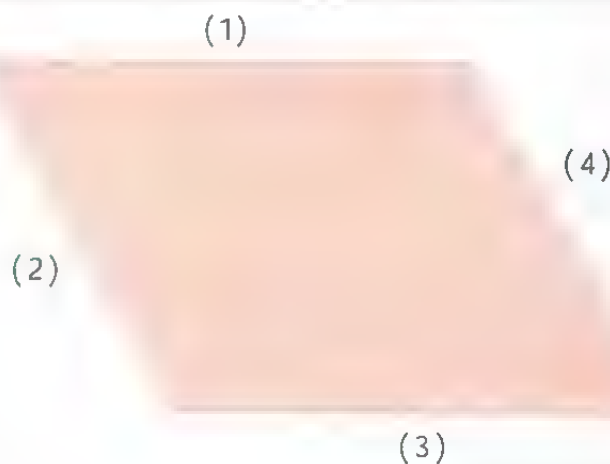
The total = ..... + ..... + ..... + ..... = .....cm

side (1) = .....cm

side (2) = .....cm

side (3) = .....cm

side (4) = .....cm



The total = ..... + ..... + ..... + ..... = .....cm

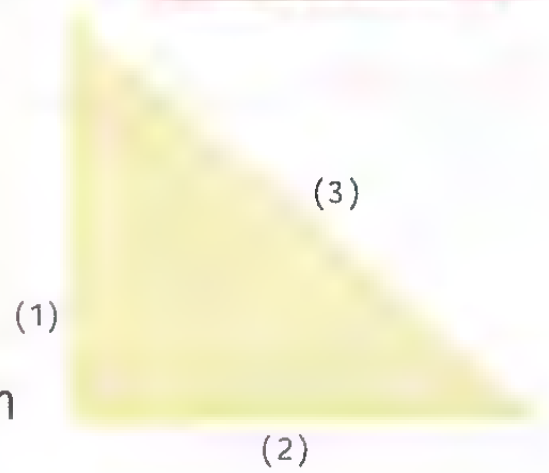


side (1) = .....cm

side (2) = .....cm

side (3) = .....cm

The total = ..... + ..... + ..... = .....cm



side (1) = .....cm

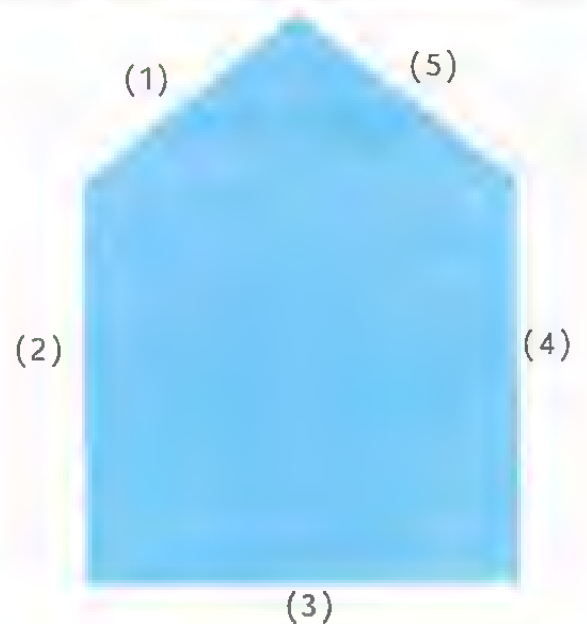
side (2) = .....cm

side (3) = .....cm

side (4) = .....cm

side (5) = .....cm

The total = ..... + ..... + ..... + ..... + ..... = .....cm



**Note:** The total length of all sides of a polygon is called (perimeter)



## Lessons 41, 42

### Calculating the perimeters of polygons in centimeters

**Perimeter**: the total length of all sides of a polygon

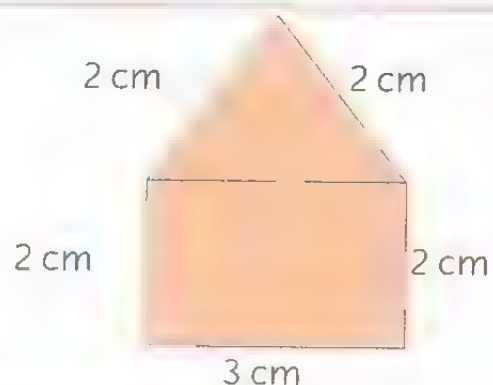
We measure the length of each side so the perimeter is a linear measurement because it determines the length of the outside line of the polygon.



**Find the perimeter.**



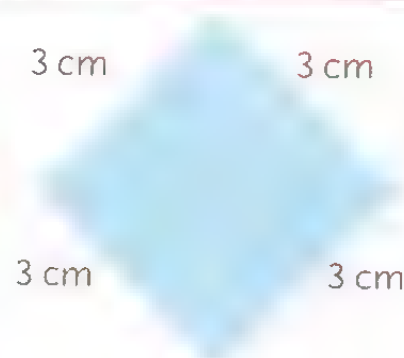
The perimeter = ..... cm



The perimeter = ..... cm



The perimeter = ..... cm



The perimeter = ..... cm



The perimeter =

..... + ..... + ..... + ..... = ..... cm



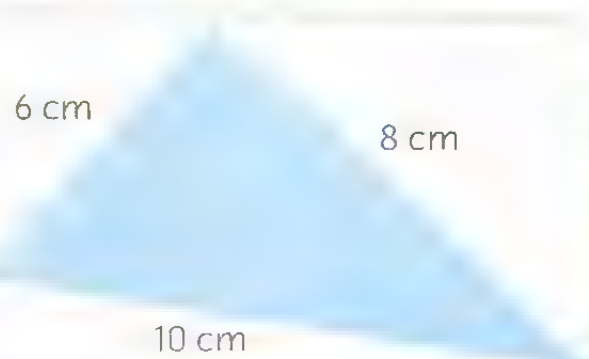
The perimeter =

..... + ..... + ..... + ..... = ..... cm



The perimeter =

..... + ..... + ..... = ..... cm



The perimeter =

..... + ..... + ..... + ..... = ..... cm



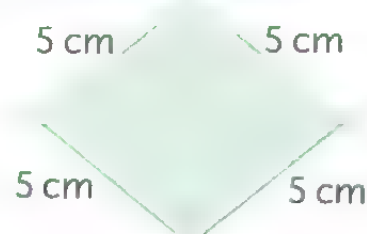
# Lessons 41, 42



Find the difference between the perimeters of the two shapes:



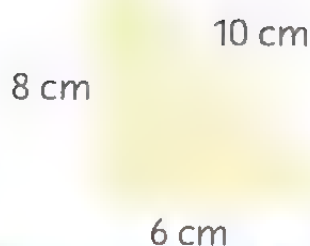
The perimeter = ..... cm



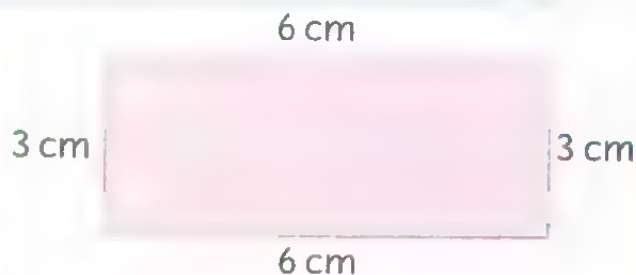
The perimeter = ..... cm

The difference

$$= \dots - \dots = \dots \text{ cm}$$



The perimeter = ..... cm



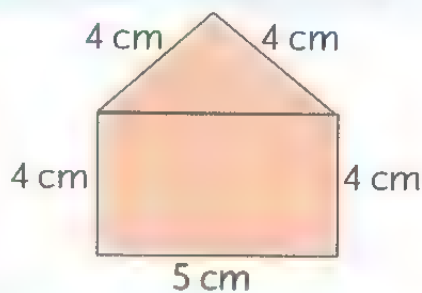
The perimeter = ..... cm

The difference

$$= \dots - \dots = \dots \text{ cm}$$



The perimeter = ..... cm



The perimeter = ..... cm

The difference

$$= \dots - \dots = \dots \text{ cm}$$

# Chapter (5)

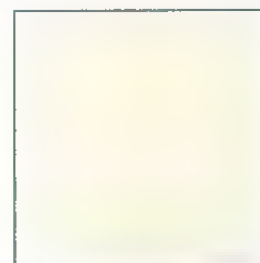
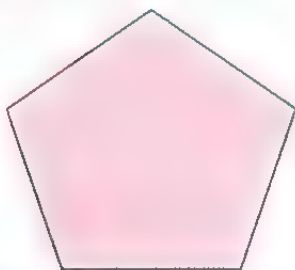
## Lesson

### (43)

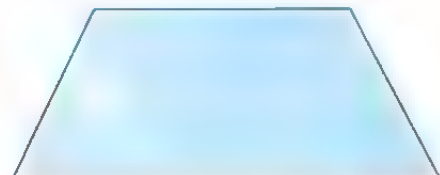
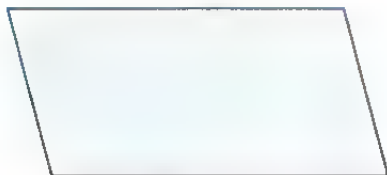
To estimate the perimeter of any polygon we estimate the total lengths of its sides through guessing



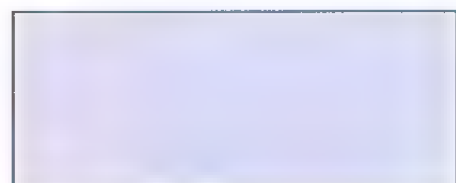
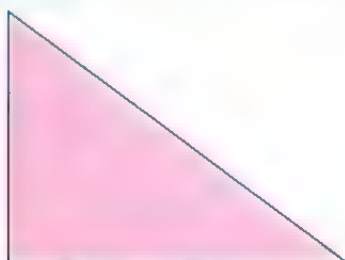
1 Estimate the perimeter of the following polygons:



Estimated perimeter = ..... cm      Estimated perimeter = ..... cm  
Actual perimeter = ..... cm      Actual perimeter = ..... cm



Estimated perimeter = ..... cm      Estimated perimeter = ..... cm  
Actual perimeter = ..... cm      Actual perimeter = ..... cm



Estimated perimeter = ..... cm      Estimated perimeter = ..... cm  
Actual perimeter = ..... cm      Actual perimeter = ..... cm



I learnt to estimate the perimeter of two-dimensional shapes.



# Lesson 43

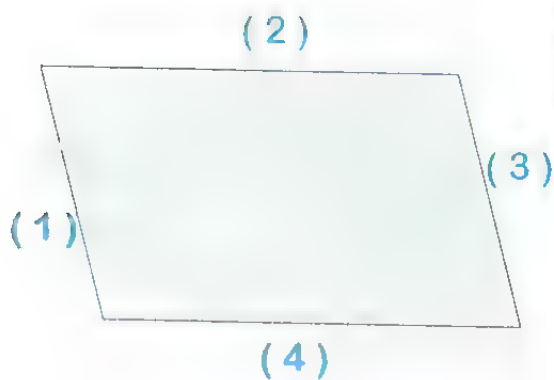


Complete the table:



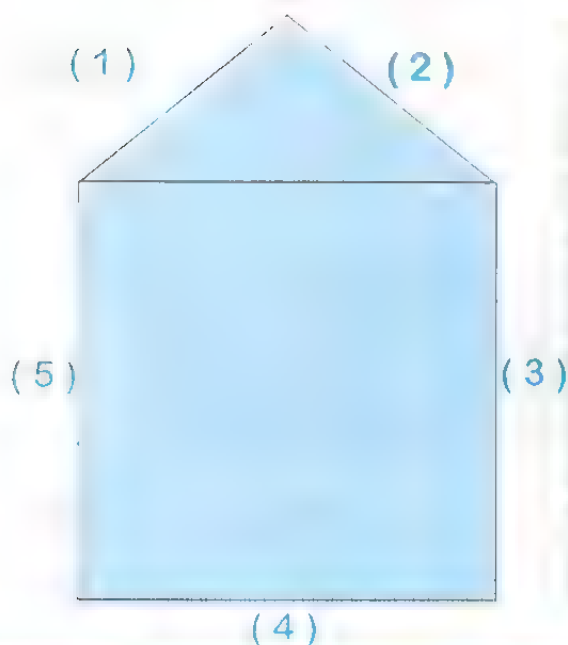
Triangle

Side	The length
(1)	..... cm
(2)	..... cm
(3)	..... cm
perimeter	..... cm



Parallelogram

Side	The length
(1)	..... cm
(2)	..... cm
(3)	..... cm
(4)	..... cm
perimeter	..... cm

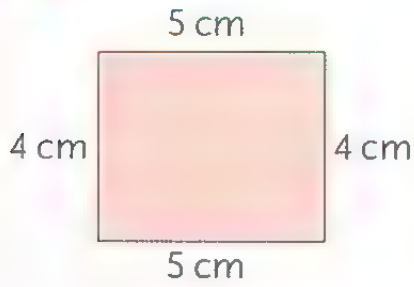


Pentagon

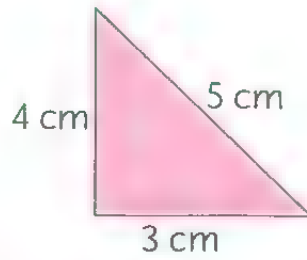
Side	The length
(1)	..... cm
(2)	..... cm
(3)	..... cm
(4)	..... cm
(5)	..... cm
perimeter	..... cm



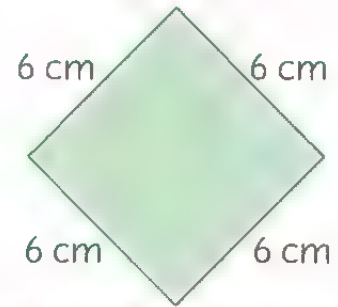
Find the perimeter, then arrange ascendingly:



The perimeter = ..... cm

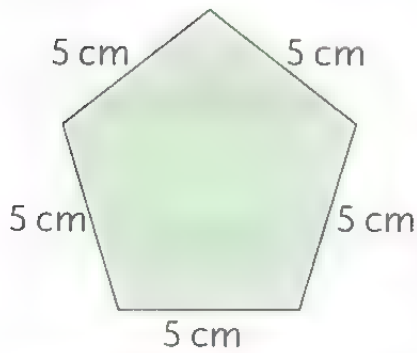


The perimeter = ..... cm

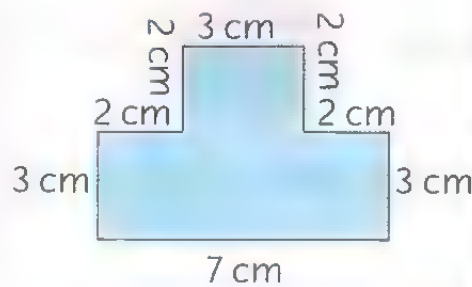


The perimeter = ..... cm

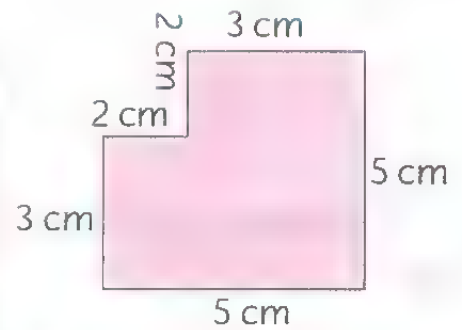
The order is : ....., ....., .....



The perimeter = ..... cm

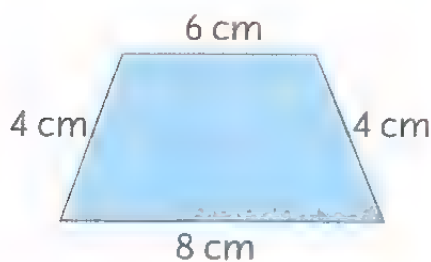


The perimeter = ..... cm

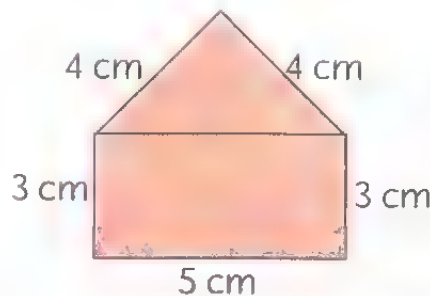


The perimeter = ..... cm

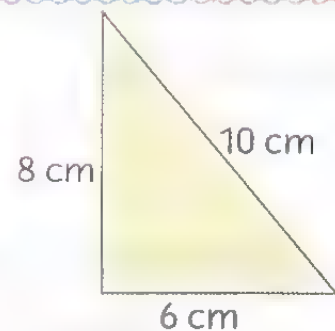
The order is : ....., ....., .....



The perimeter = ..... cm



The perimeter = ..... cm



The perimeter = ..... cm

The order is : ....., ....., .....

Chapter (5)  
Lessons  
(44,45)

# Perimeter and area

	1	2	3	4	5	6							
20							7	1	5	9	13	17	21
19							8	2	6	10	14	18	22
18							9	3	7	11	15	19	23
17							10	4	8	12	16	20	24
	16	15	14	13	12	11							

The perimeter = 20 units



Area = 24 square units



Calculate the perimeter and area of the array:

You have an array  $4 \times 6$  which consists of 4 rows and 6 columns

Perimeter of the array =

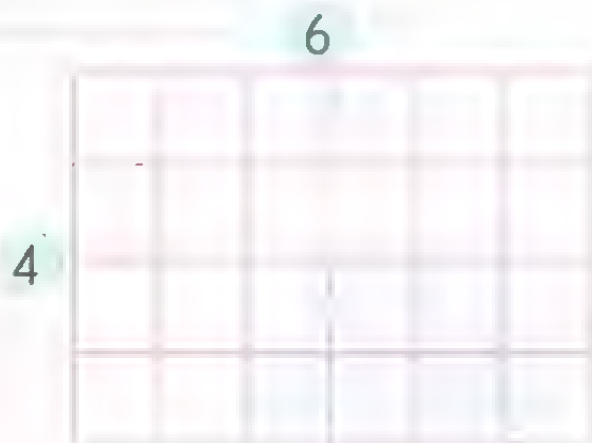
The total lengths of outside dimensions

$$= 4 + 6 + 4 + 6 = 20 \text{ units}$$

Area of the array =

No. of the inside square units

$$= 4 \times 6 = 24 \text{ square units}$$

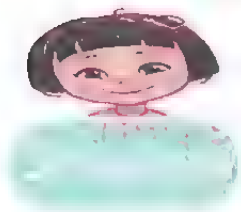


The unit of the perimeter is a linear unit.

The unit of the area is a square unit.



You have an array with 4 rows and 3 columns

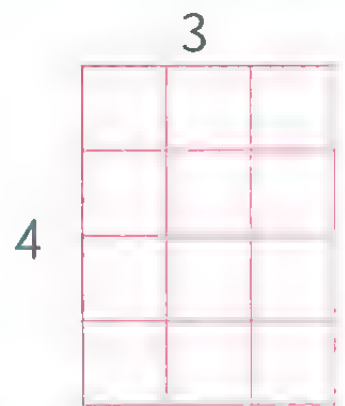


The perimeter of the array =

$$4 + 3 + 4 + 3 = 14 \text{ units}$$

The area of the array =

$$4 \times 3 = 12 \text{ square units}$$



1 Calculate the perimeter and the area:



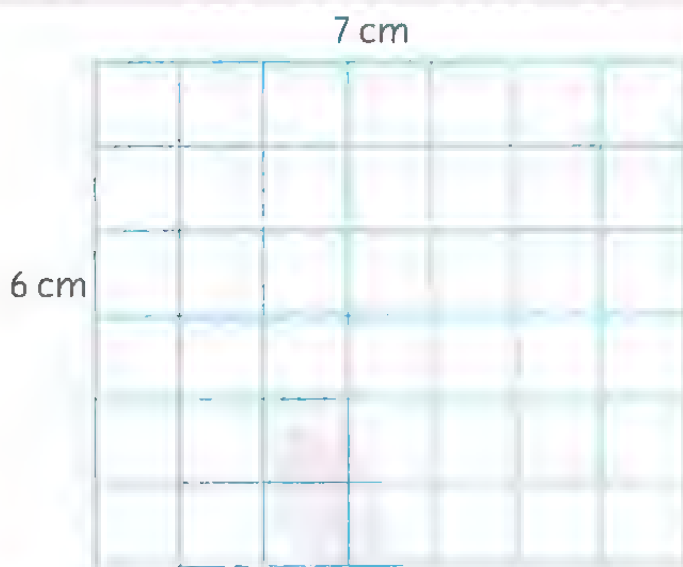
The perimeter = ..... cm

The area = ..... square cm



The perimeter = ..... cm

The area = ..... square cm



The perimeter = ..... cm

The area = ..... square cm



The perimeter = ..... cm

The area = ..... square cm

## Lessons 44, 45



Solve the following story problems:

You have a rabbit pen in the form of an array as shown. Each rabbit needs 1 square meter in the pen. How many rabbits are there in the pen?

The area of the pen = .....  $\times$  .....

= ..... square meters

No. of rabbits = ..... rabbits

5 meters



You have a cage of parrots.

The cage is in the form of an array .

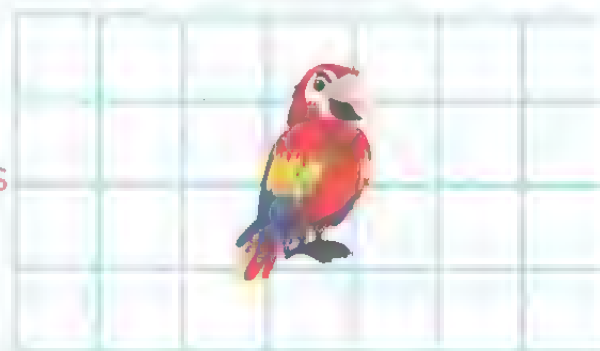
Each bird needs 1 square meter . Find:

(1) The area of the cage = ..... square meters

(2) No. of birds = ..... birds

7 meters

4 meters

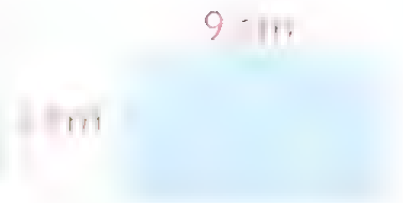






Answer the following questions:

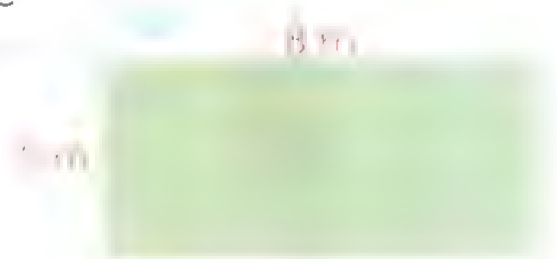
A rectangle with 9 cm long and 3 cm wide  
 Calculate: (1) The area of the rectangle  
 (2) The perimeter of the rectangle



Area = .....  $\times$  ..... = ..... square cm

Perimeter = ..... + ..... + ..... + ..... = ..... cm

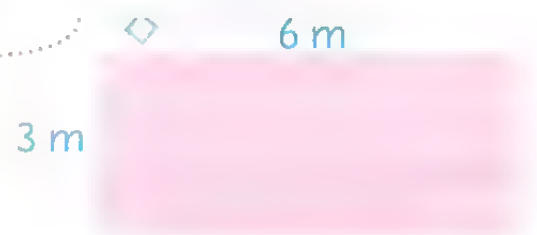
A rectangle with 8 m long and 5 m wide  
 Calculate: (1) The area of the rectangle  
 (2) The perimeter of the rectangle



Area = .....  $\times$  ..... = ..... square meters

Perimeter = ..... + ..... + ..... + ..... = ..... meters

A rectangle with 6 m long and 3 m wide  
 Calculate: (1) The area of the rectangle  
 (2) The perimeter of the rectangle



Area = .....  $\times$  ..... = ..... square meters

Perimeter = ..... + ..... + ..... + ..... = ..... meters

Can we put a group of animals inside it that needs an area of 17 square meters? .....

## Lessons 44 , 45



You have a pen as shown on the figure. You have a group of animals with area of each pen. **Find:**

6 meters



The area =

\_\_\_\_\_  $\times$  \_\_\_\_\_ = \_\_\_\_\_ square meters

The perimeter =

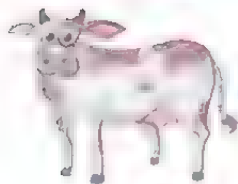
\_\_\_\_\_ + \_\_\_\_\_ + \_\_\_\_\_ + \_\_\_\_\_ = \_\_\_\_\_ meters



Rabbit's area < 30 square meters



Chicken's area < 21 square meters



Cattle's area > 39 square meters



Sheep's area > 36 square meters

What are the animals that suit the pen area ?

What are the animals that don't suit the pen area ?



5 You have some pens with their dimensions.  
A group of animals with the area of the pen where they live. Match each animal to the suitable pen:

6 meters

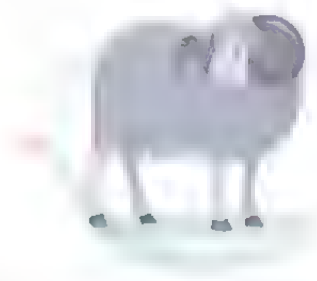


6 meters



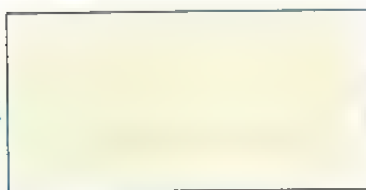
56 square meters

8 meters



25 square meters

7 meters



36 square meters

3 meters

7 meters

5 meters



21 square meters

5 meters

Chapter (5)  
Lesson  
(46)

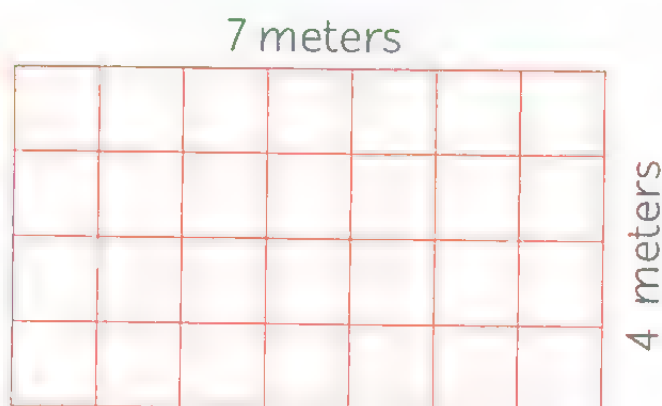


Calculate the area of the following array in different ways .

1<sup>st</sup> Strategy  
Counting all the squares

No. of boxes = 28 ☐

The area = 28 square meters



2<sup>nd</sup> Strategy  
Multiplication

The array area =

$4 \times 7 = 28$  square meters

3<sup>rd</sup> Strategy  
Repeated addition

The array area =

$7 + 7 + 7 + 7 = 28$  square meters

The array area =

$4 + 4 + 4 + 4 + 4 + 4 + 4$   
 $= 28$  square meters

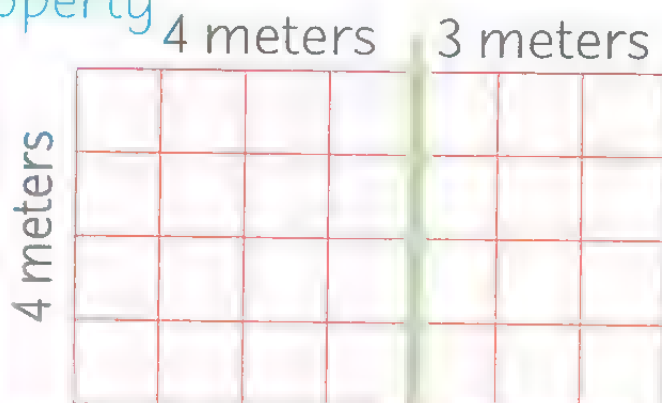
4<sup>th</sup> Strategy      Distributive property

The array area =  $4 \times 7$

=  $4 \times (4 + 3)$

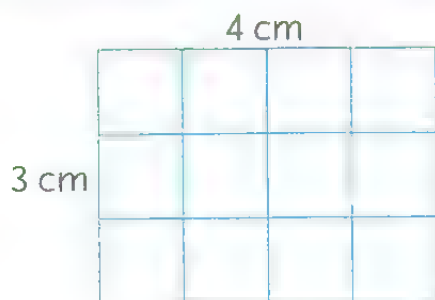
=  $(4 \times 4) + (4 \times 3)$

=  $16 + 12 = 28$  square meters





Get the area of the arrays in two different methods:

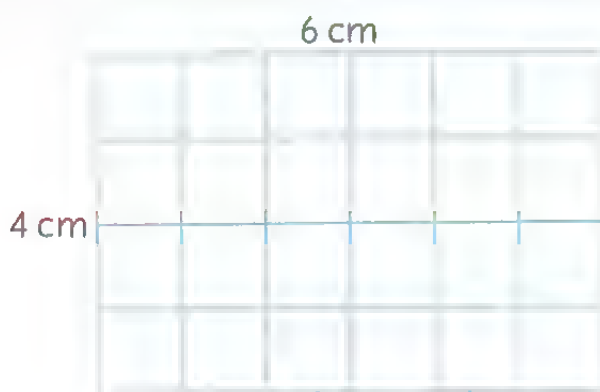


1<sup>st</sup> method :

The area = .....  
= .....

2<sup>nd</sup> method :

The area = .....  
= .....



1<sup>st</sup> method :

The area = .....  
= .....

2<sup>nd</sup> method :

The area = .....  
= .....



1<sup>st</sup> method :

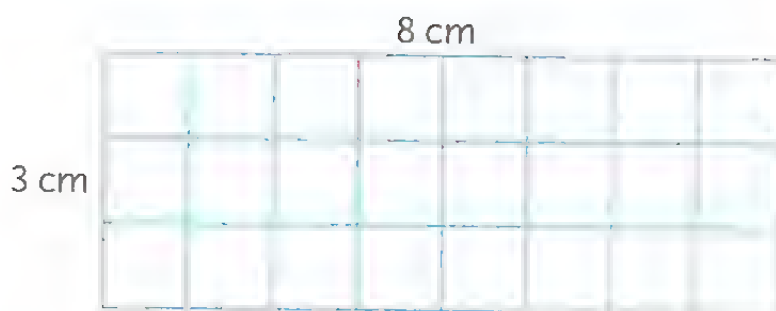
The area = .....  
= .....

2<sup>nd</sup> method :

The area = .....  
= .....



# Lesson 46

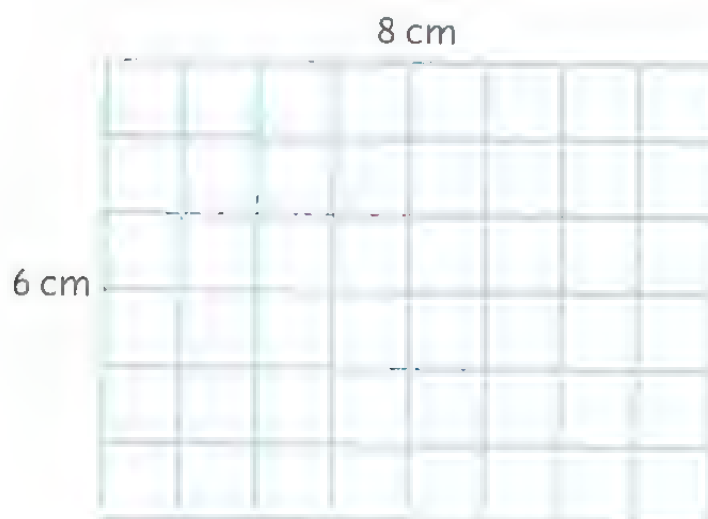


1<sup>st</sup> method :

The area = .....  
= .....

2<sup>nd</sup> method :

The area = .....  
= .....



1<sup>st</sup> method :

The area = .....  
= .....

2<sup>nd</sup> method :

The area = .....  
= .....



Choose the correct answer:

- 1 The area of a rectangle whose dimensions are 8 cm, 4 cm is (12 cm - 24 cm - 32 square cm)
- 2 The premiter of a rectangle whose dimensions are 6 cm and 3 cm is (9 cm - 18 square cm - 18 cm)
- 3 You have an array as shown on the figure. The number of columns are ..... columns (6 - 5 - 18) .



- 4 To calculate an array area , we must know number of (columns only - rows only - both of them)
- 5 The area of a rectangle whose dimensions are 7 cm and 3 cm is (21 square cm - 12 square cm - 20 square cm)
- 6 The area of a rectangle whose dimensions are 8 cm and 5 cm is (40 square cm - 13 square cm - 26 square cm)
- 7 The area of a land with dimensions of 10 m and 7 m is (17 square meters - 34 meters - 70 square meters)
- 8 The area of a poultry pen with dimensions of 9 meters and 7 meters is (63 square meters - 32 square meters - 23 meters)

## Chapter (5)

### Lesson

#### (47)

# Constructing different rectangles with the same area

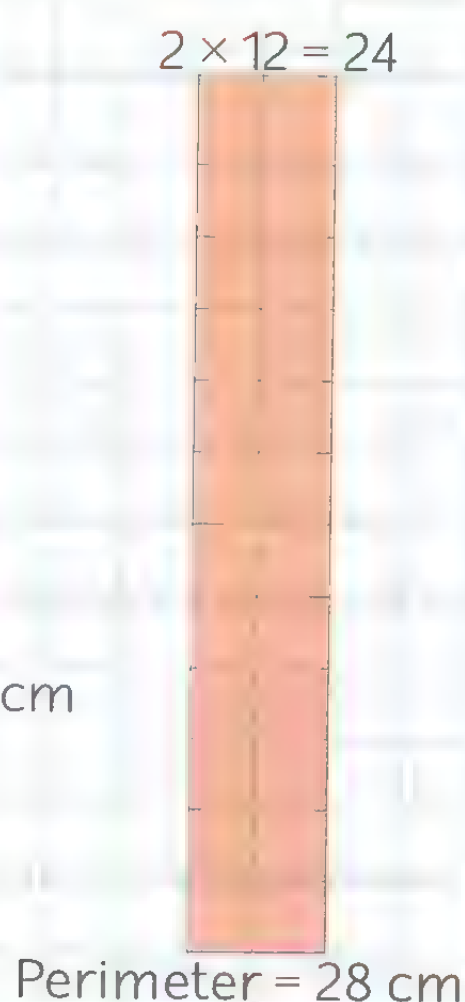
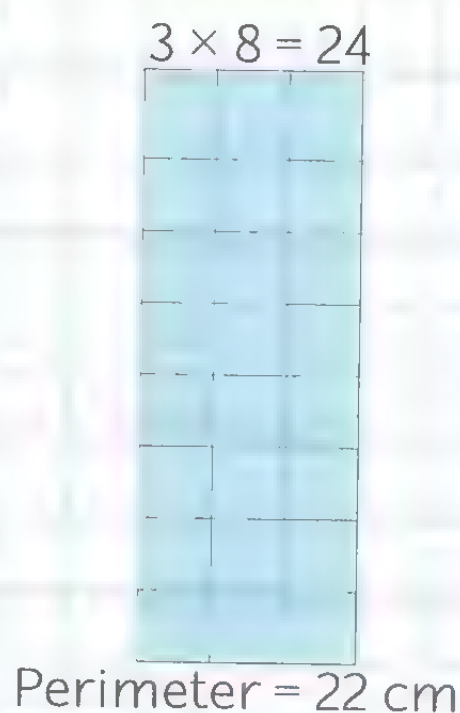
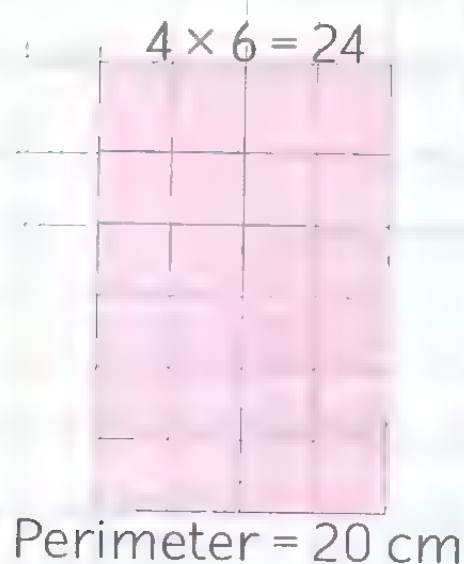
You have a rectangle with dimensions as shown in the shape :

The area =  $4 \times 6 = 24$  square cm



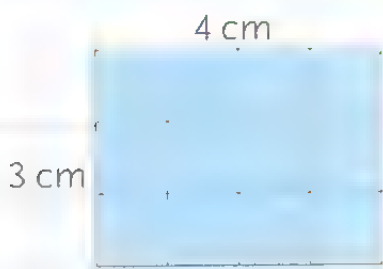
You can draw different rectangles with the same area but different perimeter.

The following ways show that on (the grid)

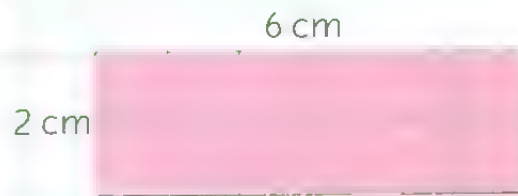




Compare the area and perimeter of the two rectangles:



Shape (1)



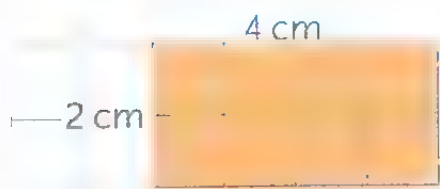
Shape (2)

Area = ..... square cm    Area = ..... square cm

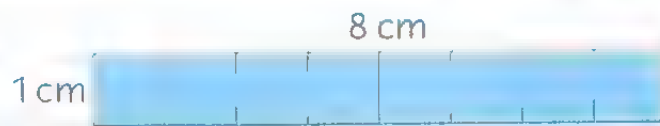
Perimeter = ..... cm    Perimeter = ..... cm

Area of shape (1) ( $>$ ,  $<$ ,  $=$ ) area of shape (2)

Perimeter of shape (1) ( $>$ ,  $<$ ,  $=$ ) perimeter of shape (2)



Shape (1)



Shape (2)

Area = ..... square cm    Area = ..... square cm

Perimeter = ..... cm    Perimeter = ..... cm

Area of shape (1) ( $>$ ,  $<$ ,  $=$ ) area of shape (2)

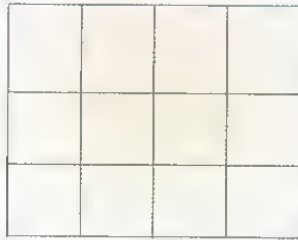
Perimeter of shape (1) ( $>$ ,  $<$ ,  $=$ ) perimeter of shape (2)

## Lesson 47



2 Draw a rectangle with the same area and different perimeter:

\_\_\_\_\_



Perimeter = \_\_\_\_\_

Perimeter = \_\_\_\_\_



3 Draw two rectangles with an area of 18 square units but different in perimeter:



4 Draw two rectangles with an area of 14 square cm but different in perimeter:



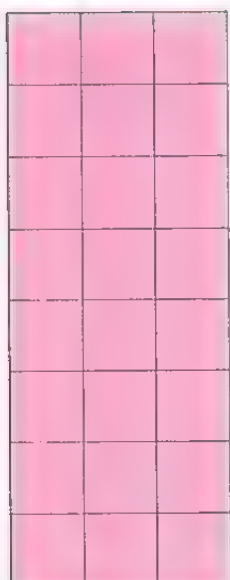




5 Draw two rectangles with an area of 20 square cm but different in perimeter:



6 Draw a rectangle with the same area of the given one but with different dimensions:



Chapter ( )  
Lesson  
( )



Perimeter = 6 cm

Area = 4 square cm



Perimeter = 6 cm

Area = 5 square cm

The two rectangles have the same perimeter but they have different areas.



Tick ( ✓ ) under each two equal shapes in perimeter:

4

3

3

2

2

3

6

5

6

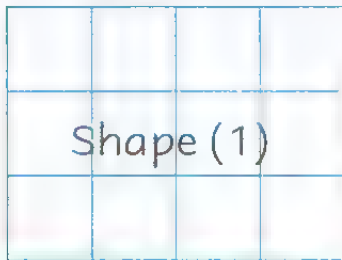
1

2

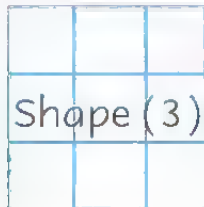
3



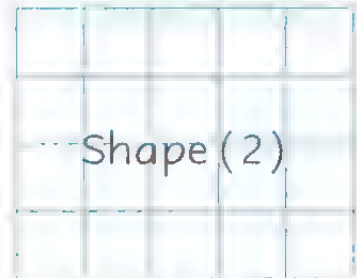
Write the number of the two equal shapes in perimeter.



Perimeter = .....



Perimeter = .....



Perimeter = .....



Perimeter = .....

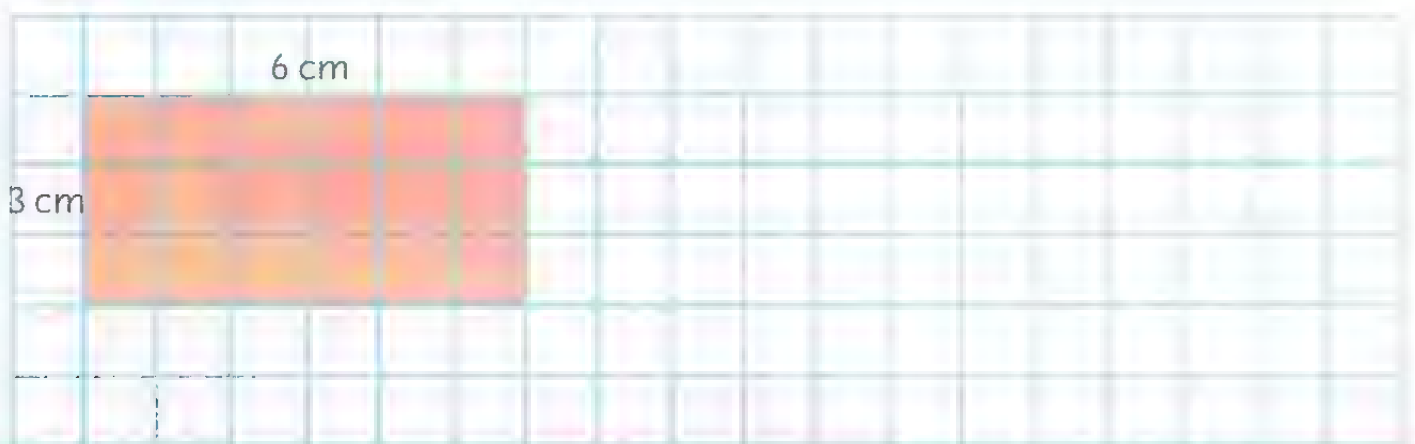
Perimeter of shape (.....) = perimeter of shape (.....)



If you have 10 square units, draw a rectangle, then calculate its perimeter:



Draw a rectangle with the same perimeter of the given one:



I learnt to construct rectangles with the same perimeter but different area.

## Lesson 48



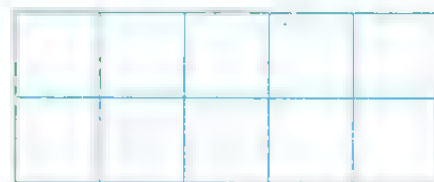
5 Calculate the perimeter and area of the two polygons:



Shape (1)

Perimeter = ..... cm

Area = ..... square cm



Shape (2)

Perimeter = ..... cm

Area = ..... square cm

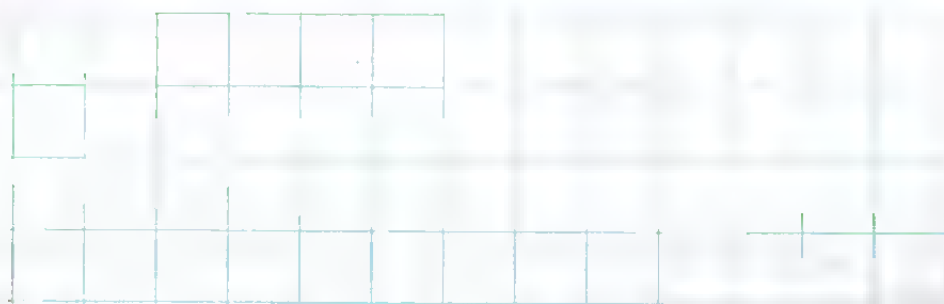
(1) Is perimeter of shape (1) equal to perimeter of shape (2)? .....

(2) Is area of shape (1) equal to area of shape (2)? .....

(3) The two shapes are equal in ..... but different in .....

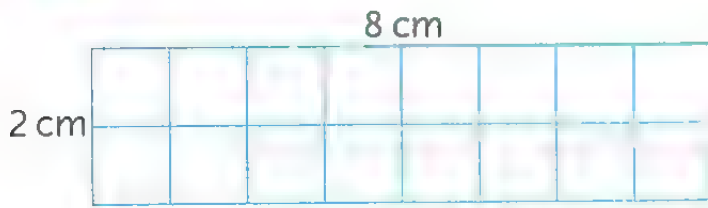


6 Show by drawing how you can construct two rectangles equal in perimeter but different in area:



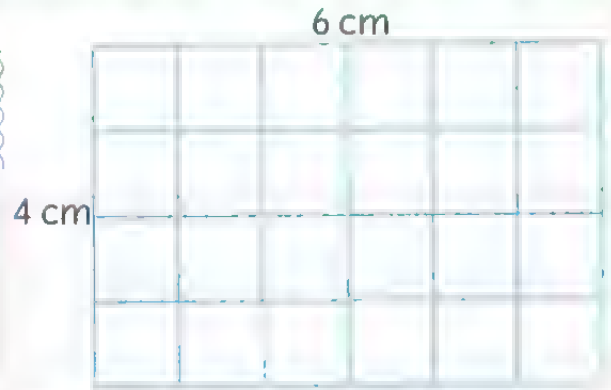


**7** Calculate the perimeter and area of the two rectangles:



Perimeter = ..... cm

Area = ..... square cm



Perimeter = ..... cm

Area = ..... square cm

The two rectangles are equal in ..... but different in .....



Perimeter = ..... cm

Area = ..... square cm



Perimeter = ..... cm

Area = ..... square cm

The two rectangles are equal in ..... but different in .....



**8** Construct two rectangles with a perimeter of 12 cm and different dimensions:





Chapter (5)  
Lesson  
(49)

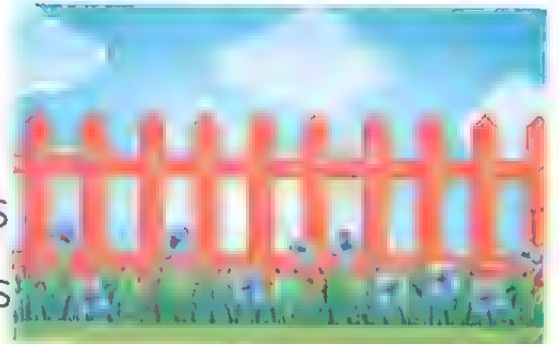
Ayesha builds a fence around her garden with dimensions of 9 m and 6 m

What is the length of the fence?

What is the area of the garden?

$$\begin{aligned}\text{Fence perimeter} &= (9 + 6) + (9 + 6) \\ &= (15) + (15) = 30 \text{ meters}\end{aligned}$$

$$\text{Garden area} = (9 \times 6) = 54 \text{ square meters}$$



**Notice:** When calculating the length of the fence, we calculate the perimeter.



**Solve the following story problems:**

Hosam has a rectangular room with inside dimensions of 5m and 3m. He wants to buy a carpet for this room.

What is the area of the carpet that Hosam needs?



Engi has a rectangular sheet that is 50 cm long and 45 cm wide. Calculate its perimeter.

Farouk is building a rectangular patio with a length of 9 tiles and a width of 8 tiles.

How many tiles does Farouk need to build the patio?

A farmer is building a fence around his rectangular garden. The garden is 8 meters long and 3 meters wide. What is the perimeter of the fence?



6 tens

$$6 \times 10 = 60$$

Notice

$$2 \times 4 = 8$$

$$2 \times 40 = 80$$

$$2 \times 400 = 800$$

$$2 \times 4000 = 8000$$



1 Find the product:

$$5 \times 1 = \dots\dots\dots$$

$$2 \times 4 = \dots\dots\dots$$

$$6 \times 8 = \dots\dots\dots$$

$$5 \times 10 = \dots\dots\dots$$

$$2 \times 40 = \dots\dots\dots$$

$$6 \times 80 = \dots\dots\dots$$

$$5 \times 100 = \dots\dots\dots$$

$$2 \times 400 = \dots\dots\dots$$

$$6 \times 800 = \dots\dots\dots$$

$$5 \times 1000 = \dots\dots\dots$$

$$2 \times 4000 = \dots\dots\dots$$

$$6 \times 8000 = \dots\dots\dots$$



2 Match the equal products:

$$2 \times 60$$

$$7 \times 50$$

$$20 \times 9$$

$$6 \times 30$$

$$5 \times 70$$

$$40 \times 9$$

$$60 \times 6$$

$$30 \times 4$$





Find the product using patterns:

$6 \times 5 = \dots\dots\dots$	$4 \times 7 = \dots\dots\dots$	$9 \times 3 = \dots\dots\dots$
$6 \times 50 = \dots\dots\dots$	$4 \times 70 = \dots\dots\dots$	$9 \times 30 = \dots\dots\dots$
$6 \times 500 = \dots\dots\dots$	$4 \times 700 = \dots\dots\dots$	$9 \times 300 = \dots\dots\dots$
$6 \times 5000 = \dots\dots\dots$	$4 \times 7000 = \dots\dots\dots$	$9 \times 3000 = \dots\dots\dots$



Find the product:

$3 \times 90 = \dots\dots\dots$	$7 \times 5000 = \dots\dots\dots$	$6 \times 800 = \dots\dots\dots$
$7 \times 8000 = \dots\dots\dots$	$4 \times 400 = \dots\dots\dots$	$6 \times 500 = \dots\dots\dots$
$4 \times 900 = \dots\dots\dots$	$7 \times 60 = \dots\dots\dots$	$7 \times 400 = \dots\dots\dots$
$8 \times 300 = \dots\dots\dots$	$5 \times 600 = \dots\dots\dots$	$6 \times 600 = \dots\dots\dots$
$6 \times 60 = \dots\dots\dots$	$7 \times 200 = \dots\dots\dots$	$9 \times 200 = \dots\dots\dots$
$5 \times 2000 = \dots\dots\dots$	$8 \times 300 = \dots\dots\dots$	$2 \times 600 = \dots\dots\dots$



Find the missing number:

$3 \times \square = 600$	$200 \times \square = 800$	$500 \times \square = 2500$
$5 \times 100 = \square$	$300 \times \square = 1500$	$900 \times \square = 4500$
$7 \times \square = 1400$	$400 \times \square = 1600$	$800 \times \square = 5600$
$8 \times \square = 400$	$600 \times \square = 1800$	$500 \times \square = 3500$

# Review on Chapter Five



Find the perimeter:



Perimeter =

..... + ..... + ..... = ..... cm

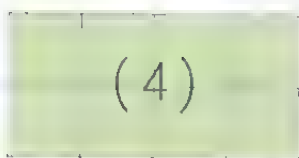
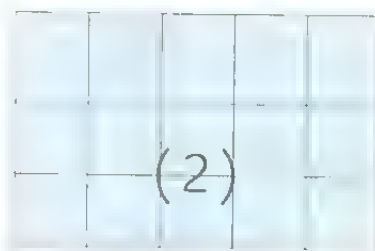
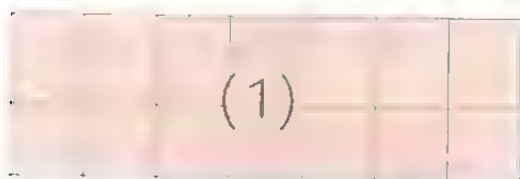


Perimeter =

{ ..... + ..... + ..... + ..... = ..... cm



Complete:

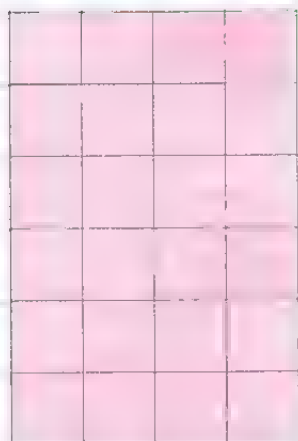


Shape	Perimeter	Area
(1)	..... cm	..... square cm
(2)	..... cm	..... square cm
(3)	..... cm	..... square cm
(4)	..... cm	..... square cm
(5)	..... cm	..... square cm

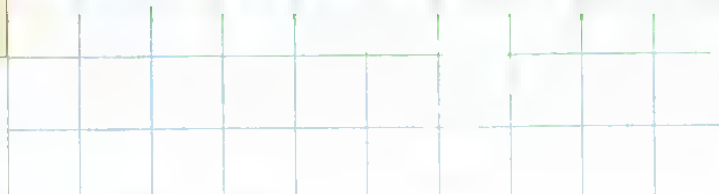
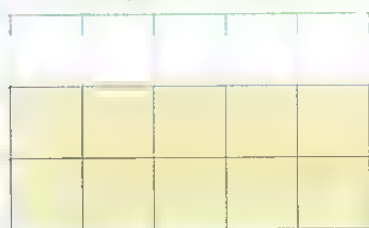




3 Draw a rectangle with the same area as the given one but in different dimensions:



4 Draw a rectangle with the same perimeter as the given one:



5 Find the product:

$$3 \text{ tens} \times 5 = \dots\dots\dots \text{tens}$$

$$6 \text{ hundreds} \times 4 = \dots\dots\dots \text{hundreds}$$

$$70 \times 8 = \dots\dots\dots$$

$$90 \times 2 = \dots\dots\dots$$

$$600 \times 8 = \dots\dots\dots$$

$$200 \times 3 = \dots\dots\dots$$

$$400 \times 9 = \dots\dots\dots$$

$$700 \times 3 = \dots\dots\dots$$

## Review



Solve the following story problems:

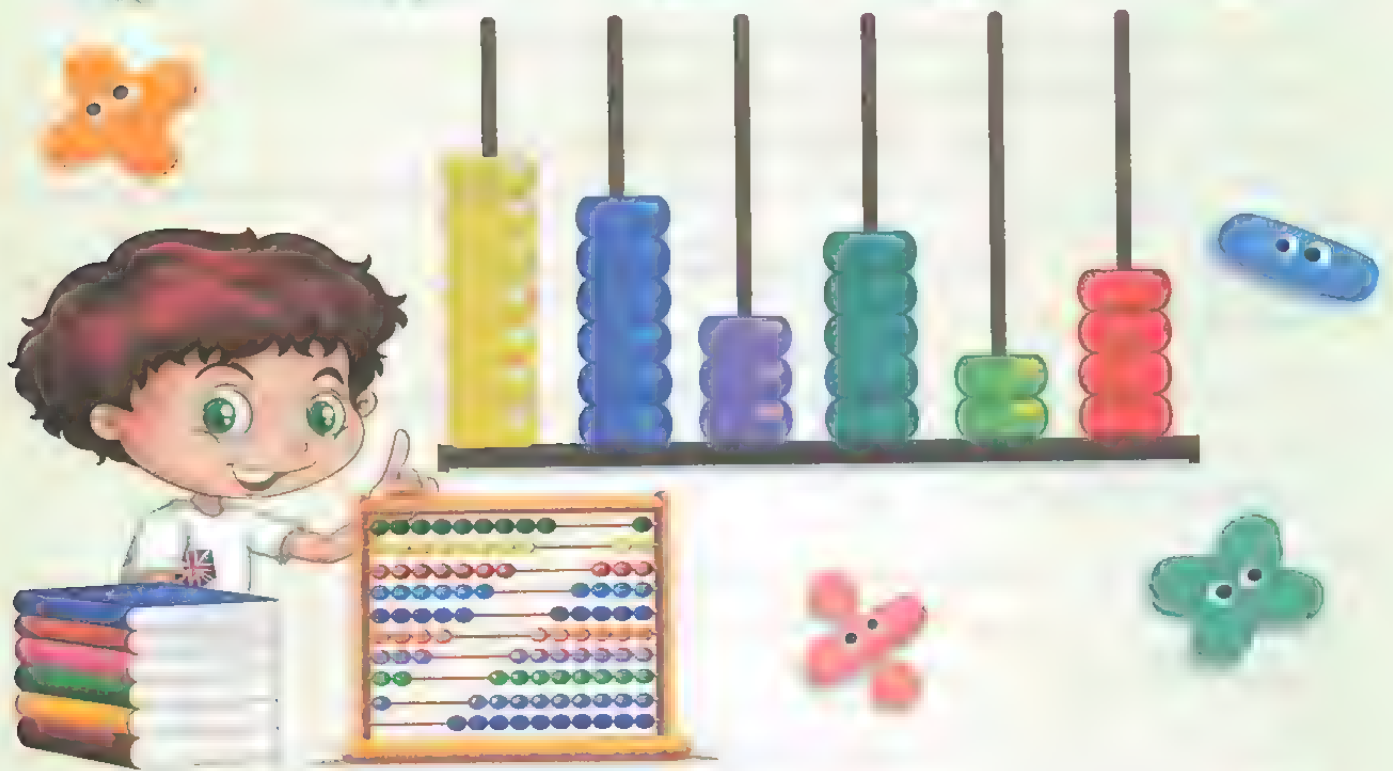
A rectangular carpet with dimensions of 3 m and 4 m.  
Calculate its area.

Hani wanted to put a wire fence around his rectangular garden that has dimensions of 9 m and 6 m.  
What is the length of the wire fence that Hani needs?

Radwa has a rectangular house with 12 m long and 10 m wide.  
Calculate the area of the house.

Lamia wanted to build a fence around her rectangular farm. The farm has dimensions of 13 m and 10 m.  
Calculate the length of the fence that Lamia needs.

# Chapter Six



- ✎ Lesson (51) **Multiplying by 10 and multiples of 10**
- ✎ Lessons (52, 53) **Multiplying by 9**
- ✎ Lesson (54) **The place value**
- ✎ Lesson (55) **Addition strategies**
- ✎ Lesson (56) **Estimating the sum of two 3-digit numbers**
- ✎ Lesson (57) **Subtraction strategies**
- ✎ Lesson (58) **Addition and subtraction story problems strategies**
- ✎ Lesson (59) **Capacity**
- ✎ Lesson (60) **Measuring capacity**

# Chapter Six Objectives

## Lesson (51)

- Explain patterns observed when multiplying by multiples of 10.

## Lessons (52 , 53)

- Investigate and apply patterns and strategies when multiplying by 9.
- Teach others one strategy for multiplying by 9.
- Identify patterns in multiplication and addition facts.
- Explain how patterns observed in multiplication and addition facts can be helpful when solving problems.
- Apply strategies to solve addition and multiplication facts quickly and accurately.

## Lesson (54)

- Identify and describe patterns in the place value system up to the hundred thousands place.
- Apply strategies for ordering numbers.

## Lesson (55)

- Apply a variety of strategies to solve addition problems.
- Explain the importance of learning different problem-solving strategies.

## Lesson (56)

- Estimate the sum of two 3-digit numbers.
- Apply a variety of strategies to add two numbers up to four digits.

## Lesson (57)

- Explain the relationship between addition and subtraction.
- Apply strategies to subtract two numbers up to four digits.
- Use addition to check answers to subtraction problems.

## Lesson (58)

- Apply strategies to solve addition and subtraction story problems.
- Reflect on learning to identify areas of strength and opportunities for growth.

## Lesson (59)

- Define volume as the measurement of the capacity of a container.
- Explain the relationship between milliliters and liters.
- Estimate the capacity of milliliter of water.
- Identify the best unit to measure the volume of a given container.

## Lesson (60)

- Read volume measurements on a standard labeled container.
- Write what they have learned about volume measurement.

# Chapter (6)

## Lesson

### (51)

# Multiplying by 10 and

## Multiples of 10



Complete the table:

	1	2	3	4	5	6	7	8	9	10	11	12
10 ×												



**Remember:** On multiplying by 10 or its multiples, first we multiply numbers then we add the same number of zeroes

## Notice



$$6 \times 3 = 18$$



$$6 \times 30 = 180$$



$$6 \times 300 = 1800$$



$$6 \times 3000 = 18000$$



Find the product:

$$3 \times 4 = \dots\dots\dots$$

$$3 \times 40 = \dots\dots\dots$$

$$3 \times 400 = \dots\dots\dots$$

$$3 \times 4000 = \dots\dots\dots$$

$$5 \times 7 = \dots\dots\dots$$

$$5 \times 70 = \dots\dots\dots$$

$$5 \times 700 = \dots\dots\dots$$

$$5 \times 7000 = \dots\dots\dots$$

$$4 \times 8 = \dots\dots\dots$$

$$4 \times 80 = \dots\dots\dots$$

$$4 \times 800 = \dots\dots\dots$$

$$4 \times 8000 = \dots\dots\dots$$

$$6 \times 9 = \dots\dots\dots$$

$$6 \times 90 = \dots\dots\dots$$

$$6 \times 900 = \dots\dots\dots$$

$$6 \times 9000 = \dots\dots\dots$$





# Lesson 51



Find the product:



Multiply the two numbers  
and write zeroes on the right.

$$\begin{array}{r} 30 \\ \times 50 \\ \hline \end{array}$$

$$\begin{array}{r} 12 \\ \times 10 \\ \hline \end{array}$$

$$\begin{array}{r} 300 \\ \times 2 \\ \hline \end{array}$$

$$\begin{array}{r} 4 \\ \times 2000 \\ \hline \end{array}$$

$$\begin{array}{r} 60 \\ \times 90 \\ \hline \end{array}$$

$$\begin{array}{r} 10 \\ \times 100 \\ \hline \end{array}$$

$$\begin{array}{r} 7 \\ \times 40 \\ \hline \end{array}$$

$$\begin{array}{r} 300 \\ \times 50 \\ \hline \end{array}$$

$$\begin{array}{r} 1000 \\ \times 5 \\ \hline \end{array}$$

$$\begin{array}{r} 70 \\ \times 5 \\ \hline \end{array}$$

$$\begin{array}{r} 80 \\ \times 900 \\ \hline \end{array}$$

$$\begin{array}{r} 7 \\ \times 4000 \\ \hline \end{array}$$

$$\begin{array}{r} 4 \\ \times 50 \\ \hline \end{array}$$

$$\begin{array}{r} 9 \\ \times 50 \\ \hline \end{array}$$

$$\begin{array}{r} 7 \\ \times 60 \\ \hline \end{array}$$

$$\begin{array}{r} 100 \\ \times 170 \\ \hline \end{array}$$



Color each 2 equations with the same product in the same color:

$3 \times 60$

$5 \times 30$

$50 \times 3$

$4 \times 50$

$4 \times 60$

$20 \times 10$

$90 \times 2$

$30 \times 8$



Answer the following as the example:

$$7 \times 50 = 7 \times 5 \times 10 = (7 \times 5) \times 10 = 35 \times 10 = 350$$

**Notice** We use ( ) brackets to make multiplication easy and tell us which part we must find first.



$4 \times 90$

$7 \times 60$

$8 \times 30$

$(\dots \times \dots) \times 10$

$(\dots \times \dots) \times 10$

$(\dots \times \dots) \times 10$

$= \dots$

$= \dots$

$= \dots$



$5 \times 80$

$9 \times 70$

$4 \times 50$

$(\dots \times \dots) \times 10$

$(\dots \times \dots) \times 10$

$(\dots \times \dots) \times 10$

$= \dots$

$= \dots$

$= \dots$



$7 \times 20$

$4 \times 60$

$8 \times 40$

$(\dots \times \dots) \times 10$

$(\dots \times \dots) \times 10$

$(\dots \times \dots) \times 10$

$= \dots$

$= \dots$

$= \dots$

## Chapter (6)

### Lessons

(52, 53)

We'll learn to find out multiplication patterns by 9

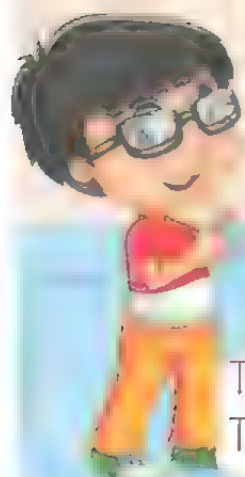
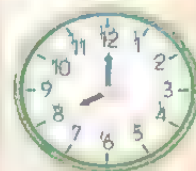
1	×	9	=	09
2	×	9	=	18
3	×	9	=	27
4	×	9	=	36
5	×	9	=	45
6	×	9	=	54
7	×	9	=	63
8	×	9	=	72
9	×	9	=	81
10	×	9	=	90



Example: To find the product  $4 \times 9$  we make.

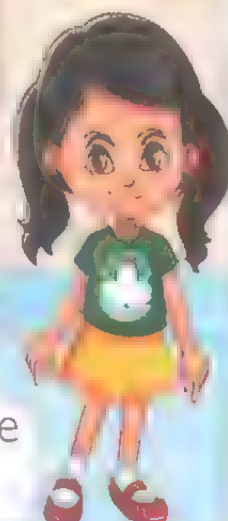
First step  $4 \times 9 = 36$  because  $4 \times 9 = 36$

Second step  $4 \times 9 = 36$  because  $4 \times 9 = 36$



The tens digit is 1 less than the first factor, the sum of ones and tens is 9

The ones digit goes down by one each time  
The tens digit goes up by one each time





1 Write the missing number:

$$5 \times 9 = \boxed{4} \boxed{\phantom{0}}$$

$$2 \times 9 = \boxed{1} \boxed{\phantom{0}}$$

$$7 \times 9 = \boxed{\phantom{0}} \boxed{3}$$

$$4 \times 9 = \boxed{\phantom{0}} \boxed{6}$$



2 Compare using ( $>$ ,  $<$  or  $=$ ):

$$9 \times 4$$

$$5 \times 9$$

$$6 \times 6$$

$$4 \times 9$$

$$2 \times 9$$

$$9 \times 9$$

$$9 \times 9$$

$$8 \times 9$$

$$3 \times 9$$

$$9 \times 3$$

$$3 \times 3$$

$$1 \times 9$$

$$9 \times 1$$

$$9 \times 0$$

$$8 \times 7$$

$$9 \times 6$$

$$2 \times 9$$

$$9 \times 3$$

$$8 \times 9$$

$$9 \times 8$$

$$9 \times 2$$

$$3 \times 6$$

$$9 \times 6$$

$$8 \times 8$$

$$7 \times 5$$

$$4 \times 6$$

$$5 \times 10$$

$$4 \times 8$$

$$6 \times 8$$

$$9 \times 5$$

$$4 \times 7$$

$$8 \times 7$$

# Lessons 52, 53

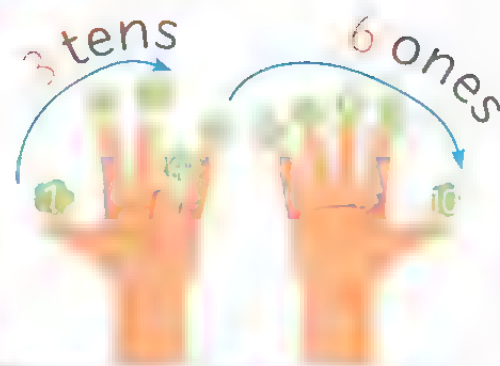


Find the product

$$9 \times 4$$



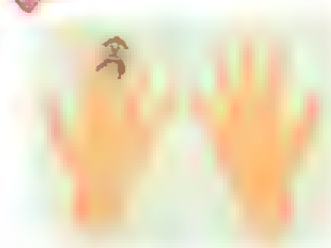
Bend down finger number 4  
Fingers to the left represent the tens  
Fingers to the right represent the ones



The product is ...  $9 \times 4 = 36$



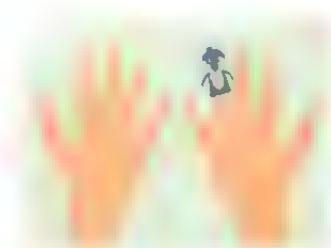
Complete:



$$9 \times 3 = \dots\dots\dots$$



$$9 \times 6 = \dots\dots\dots$$



$$9 \times 7 = \dots\dots\dots$$



$$9 \times 8 = \dots\dots\dots$$



$$9 \times \dots\dots = \dots\dots\dots$$



$$9 \times \dots\dots = \dots\dots\dots$$





Find the missing number:

$9 \times \dots = 27$

$9 \times \dots = 45$

$9 \times \dots = 54$

$9 \times \dots = 63$

$9 \times \dots = 72$

$9 \times \dots = 18$

$\dots \times 3 = 27$

$\dots \times 9 = 81$

$\dots \times 5 = 45$

$9 \times \dots = 0$

$6 \times \dots = 36$

$1 \times \dots = 9$

$4 \times \dots = 36$

$\dots \times 11 = 99$

$9 \times \dots = 108$



Multiplying by 10 facts strategy

To find the product

$8 \times 9$

First:  $8 \times 10 = 80$

Second:  $80 - 8 = 72$

$8 \times 9 = 72$

To find the product

$6 \times 9$

First:  $6 \times 10 = 60$

Second:  $60 - 6 = 54$

$6 \times 9 = 54$



Find the product:

$9 \times 6 = \dots$

$4 \times 9 = \dots$

$5 \times 9 = \dots$

$9 \times 9 = \dots$

$3 \times 9 = \dots$

$7 \times 9 = \dots$

$8 \times 9 = \dots$

$9 \times 10 = \dots$

## Lessons 52, 53



Complete the table:



1	2	3	4	5	6	7	8	9	10	11	12



Find the missing number:

	3		.....		5		1
x	.....	x	9	x	.....	x	.....
	15		54		25		9
	6		2		5		9
x	.....	x	.....	x	.....	x	.....
	36		18		35		0
	8		.....		6		6
x	.....	x	3	x	.....	x	7
	72		18		48		.....
	1		8		9		4
x	.....	x	.....	x	.....	x	9
	12		0		45		.....



Find the product:

$$\begin{array}{r} 9 \\ \times 0 \\ \hline \end{array}$$

$$\begin{array}{r} 7 \\ \times 9 \\ \hline \end{array}$$

$$\begin{array}{r} 3 \\ \times 9 \\ \hline \end{array}$$

$$\begin{array}{r} 5 \\ \times 9 \\ \hline \end{array}$$

$$\begin{array}{r} 9 \\ \times 2 \\ \hline \end{array}$$

$$\begin{array}{r} 9 \\ \times 4 \\ \hline \end{array}$$

$$\begin{array}{r} 9 \\ \times 7 \\ \hline \end{array}$$

$$\begin{array}{r} 0 \\ \times 9 \\ \hline \end{array}$$

$$\begin{array}{r} 9 \\ \times 1 \\ \hline \end{array}$$

$$\begin{array}{r} 9 \\ \times 9 \\ \hline \end{array}$$

$$\begin{array}{r} 9 \\ \times 5 \\ \hline \end{array}$$

$$\begin{array}{r} 2 \\ \times 9 \\ \hline \end{array}$$

$$\begin{array}{r} 4 \\ \times 9 \\ \hline \end{array}$$

$$\begin{array}{r} 8 \\ \times 9 \\ \hline \end{array}$$

$$\begin{array}{r} 6 \\ \times 9 \\ \hline \end{array}$$

$$\begin{array}{r} 1 \\ \times 9 \\ \hline \end{array}$$

$$\begin{array}{r} 9 \\ \times 8 \\ \hline \end{array}$$

$$\begin{array}{r} 9 \\ \times 6 \\ \hline \end{array}$$

$$\begin{array}{r} 9 \\ \times 10 \\ \hline \end{array}$$

$$\begin{array}{r} 10 \\ \times 9 \\ \hline \end{array}$$

# Lessons 52, 53



Find the results:

$4 \times 4 = \dots\dots\dots$

$2 \times 5 = \dots\dots\dots$

$6 + 6 = \dots\dots\dots$

$10 + 4 = \dots\dots\dots$

$0 \times 8 = \dots\dots\dots$

$4 \times 2 = \dots\dots\dots$

$6 \times 7 = \dots\dots\dots$

$8 + 9 = \dots\dots\dots$

$6 \times 4 = \dots\dots\dots$

$4 + 4 = \dots\dots\dots$

$5 + 8 = \dots\dots\dots$

$3 \times 3 = \dots\dots\dots$

$5 \times 10 = \dots\dots\dots$

$2 \times 9 = \dots\dots\dots$

$1 \times 1 = \dots\dots\dots$

$9 \times 7 = \dots\dots\dots$

$1 \times 0 = \dots\dots\dots$

$3 \times 9 = \dots\dots\dots$

$0 + 4 = \dots\dots\dots$

$2 \times 4 = \dots\dots\dots$

$5 + 10 = \dots\dots\dots$

$2 + 6 = \dots\dots\dots$

$1 \times 9 = \dots\dots\dots$

$1 + 9 = \dots\dots\dots$

$3 \times 11 = \dots\dots\dots$

$5 + 11 = \dots\dots\dots$

$2 \times 11 = \dots\dots\dots$

$1 \times 12 = \dots\dots\dots$

$2 + 9 = \dots\dots\dots$

$4 \times 10 = \dots\dots\dots$

$4 + 5 = \dots\dots\dots$

$8 \times 9 = \dots\dots\dots$

$1 + 0 = \dots\dots\dots$

$5 \times 6 = \dots\dots\dots$



Match the equal products:

$2 \times 9$



$3 \times 8$



$2 \times 4$



$2 \times 8$



$6 \times 6$



$9 \times 0$



$5 \times 6$



$3 \times 4$



$4 \times 5$



$5 \times 8$



$3 \times 3$



$4 \times 6$



$3 \times 6$



$4 \times 4$



$1 \times 8$



$5 \times 0$



$4 \times 9$



$2 \times 6$



$6 \times 5$



$1 \times 9$



$2 \times 10$



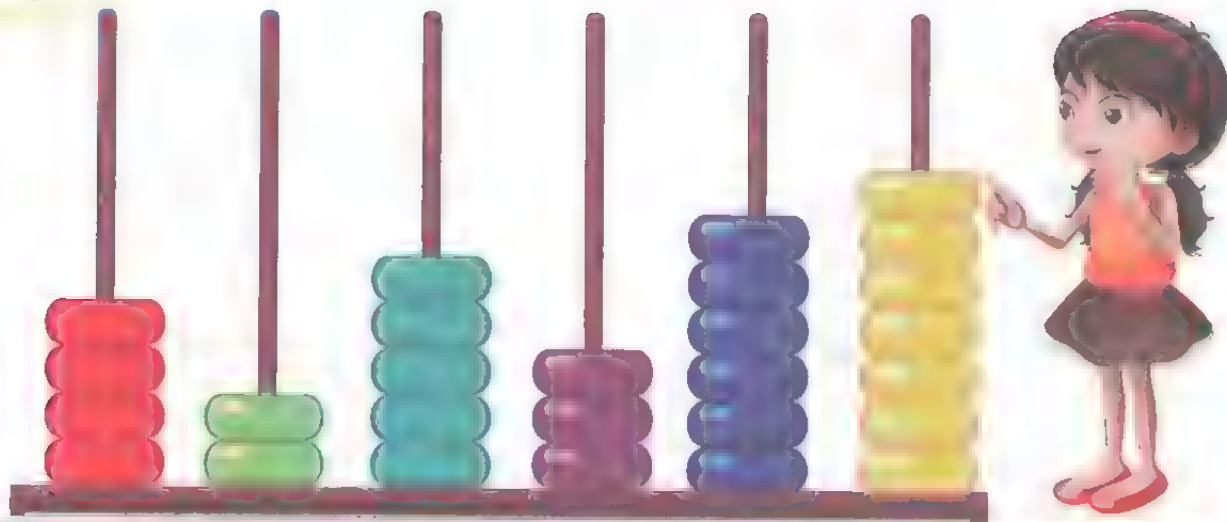
$4 \times 10$





Chapter (6)  
Lesson  
(54)

# The place value



Number	4	2	5	3	6	7
Place value	Hundred thousands	Ten thousands	Thousands	Hundreds	Tens	Ones
Value	400000	20000	5000	300	60	7

**Complete :**

$$876543 = \dots + \dots + \dots + \dots + \dots + \dots$$

- 3 Ones = .....
- 4 Tens = .....
- 5 Hundreds = .....
- 6 Thousands = .....
- 7 Ten thousands = .....
- 8 Hundred thousands = .....

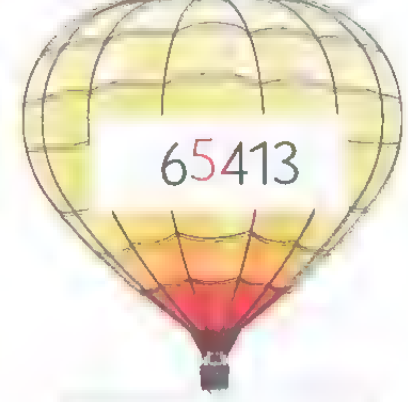
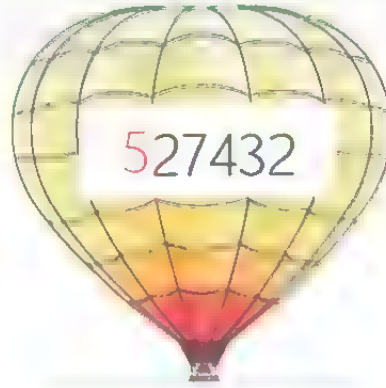




Write the place value and the value of 5 in the following as the example:



Tens  
50



Complete in the same pattern:

1 5000, 6000, 7000, ..... , ..... , .....

2 29500, 29600, 29700, ..... , ..... , .....

3 23850, 23840, 23830, ..... , ..... , .....

4 777777, 666666, 555555, ..... , ..... , .....

# Lesson 54



Complete the table as the example:

Number	Add 10	Add 100	Add 1000
2945	2955	3045	3945
3789			
63521			
49803			

Number	Subtract 10	Subtract 100	Subtract 1000
7821	7811	7721	6821
59435			
6872			
48934			



Complete the table:

Number	Hundred thousands	Ten thousands	Thousands	Hundreds	Tens	Ones
29825						
365024						
567346						
349000						
796001						
625007						



**5 Write in standard form:**

5 Thousands, 6 Hundreds,  
4 Ones.

\_\_\_\_\_

Forty-seven thousand,  
twenty-five.

\_\_\_\_\_

One hundred sixty-five  
thousand, three hundred  
fifteen.

\_\_\_\_\_

Fifty-seven thousand,  
one hundred fifty-three.

\_\_\_\_\_



**6 Write in expanded form:**

1 734527 = \_\_\_\_\_ + \_\_\_\_\_ + \_\_\_\_\_ + \_\_\_\_\_ + \_\_\_\_\_ + \_\_\_\_\_

2 62549 = \_\_\_\_\_ + \_\_\_\_\_ + \_\_\_\_\_ + \_\_\_\_\_ + \_\_\_\_\_

3 853123 = \_\_\_\_\_ + \_\_\_\_\_ + \_\_\_\_\_ + \_\_\_\_\_ + \_\_\_\_\_ + \_\_\_\_\_

4 393784 = \_\_\_\_\_ + \_\_\_\_\_ + \_\_\_\_\_ + \_\_\_\_\_ + \_\_\_\_\_ + \_\_\_\_\_

5 28504 = \_\_\_\_\_ + \_\_\_\_\_ + \_\_\_\_\_ + \_\_\_\_\_ + \_\_\_\_\_

6 934315 = \_\_\_\_\_ + \_\_\_\_\_ + \_\_\_\_\_ + \_\_\_\_\_ + \_\_\_\_\_ + \_\_\_\_\_

7 754624 = \_\_\_\_\_ + \_\_\_\_\_ + \_\_\_\_\_ + \_\_\_\_\_ + \_\_\_\_\_ + \_\_\_\_\_

8 271532 = \_\_\_\_\_ + \_\_\_\_\_ + \_\_\_\_\_ + \_\_\_\_\_ + \_\_\_\_\_ + \_\_\_\_\_

9 36829 = \_\_\_\_\_ + \_\_\_\_\_ + \_\_\_\_\_ + \_\_\_\_\_ + \_\_\_\_\_

# Lesson 54



7 Write in standard form:

1 321 Thousands, 2 Hundreds, 9 Tens, 2 Ones

2 16 Thousands, 7 Hundreds, 3 Tens, 8 Ones

3 432 Thousands, 7 Tens

4 632 Thousands, 9 Ones

5 7 Hundreds, 5 Tens, 6 Ones

6 5 Thousands, 7 Ones

.....

.....

.....

.....

.....

.....



8 Color the greatest number in red and the smallest number in in each set:

(A)

(B)

(C)

(D)

7117

88128

99990

98445

7711

88812

99099

98454

7171

88218

99909

78544

1177

18882

90999

44598





Compare using ( $>$ ,  $<$  or  $=$ ):

390007  $\quad$   $\quad$  39007

27685  $\quad$  27865

79284  $\quad$  792840

300 hundreds  $\quad$  500 tens

50251  $\quad$  50351

28345  $\quad$  29345

849573  $\quad$  949573

53214  $\quad$  53214

Five hundred thousand  $\quad$  50632

94004  $\quad$  40094

36752  $\quad$  36752

64825  $\quad$  64835

35 Thousands  $\quad$  35 hundreds

19732  $\quad$  19732

## Lesson 54



Arrange the following:

32512 , 11111 , 32519 , 32517

Ascendingly: ..... , ..... , ..... , ..... .

Descendingly: ..... , ..... , ..... , ..... .

29909 , 20990 , 90000 , 29999

Ascendingly: ..... , ..... , ..... , ..... .

Descendingly: ..... , ..... , ..... , ..... .

730601 , 730061 , 730160 , 730016

Ascendingly: ..... , ..... , ..... , ..... .

Descendingly: ..... , ..... , ..... , ..... .

753246 , 99999 , 752346 , 754246

Ascendingly: ..... , ..... , ..... , ..... .

Descendingly: ..... , ..... , ..... , ..... .

11111 , 100011 , 10001 , 110001

Ascendingly: ..... , ..... , ..... , ..... .

Descendingly: ..... , ..... , ..... , ..... .



## Decomposing numbers strategy



$$742 = 700 + 40 + 2$$

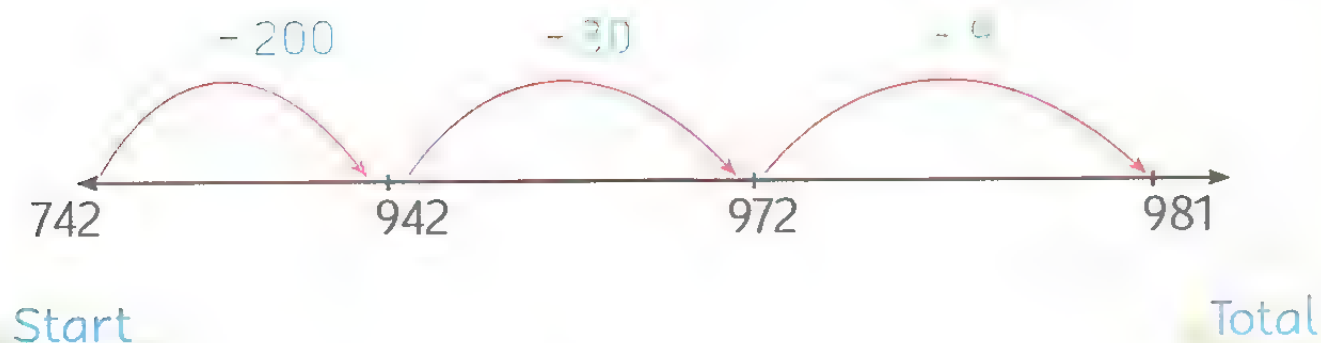
$$219 = 200 + 30 + 9$$

$$= 900 - 70 - 11$$

- 981

## Number line strategy

$742 + 239$



# Lesson 55



Use one of addition strategies to find the sum:

Addition sentence	First strategy	Second strategy
$89 + 175$		
$532 + 117$		
$223 + 315$		
$578 + 224$		
$943 + 245$		

## Remember

### (1) Rounding to the nearest ten

If the digit in ones place is less than 5, replace it by 0 and write the other digits

724  $\longrightarrow$  720

351  $\longrightarrow$  350

If the digit in ones place is 5 or more, replace it by 0 and add one to the digit in the tens place

315  $\longrightarrow$  320

698  $\longrightarrow$  700

### (2) Rounding to the nearest hundred

If the digit in tens place is less than 5, replace the ones and tens places by 0 then write the other digit

641  $\longrightarrow$  600

939  $\longrightarrow$  900

If the digit in tens place is 5 or more, replace the ones and tens places by 0 and add one to the digit in the hundred place

651  $\longrightarrow$  700

981  $\longrightarrow$  1000



# Lesson 56

1 Choose the correct answer:

- 1 The estimation of 742 to the nearest ten (740 74 750)
- 2 The estimation of 998 to the nearest hundred (990 900 1000)
- 3 The estimation of 457 to the nearest ten (450 45 460)
- 4 The estimation of 376 to the nearest hundred (370 300 400)

2 Estimate the following sums as the example:

$$432 \xrightarrow{\text{estimation}} 400$$

$$+ 621 \xrightarrow{\text{estimation}} + 600$$

---


$$1000$$

$$268 \xrightarrow{\text{estimation}} \dots\dots\dots$$

$$+ 107 \xrightarrow{\text{estimation}} + \dots\dots\dots$$

---

$$\dots\dots\dots$$

$$635 \xrightarrow{\text{estimation}} \dots\dots\dots$$

$$+ 311 \xrightarrow{\text{estimation}} + \dots\dots\dots$$

---

$$\dots\dots\dots$$

$$236 \xrightarrow{\text{estimation}} \dots\dots\dots$$

$$+ 127 \xrightarrow{\text{estimation}} + \dots\dots\dots$$

---

$$\dots\dots\dots$$

$$745 \xrightarrow{\text{estimation}} \dots\dots\dots$$

$$+ 217 \xrightarrow{\text{estimation}} + \dots\dots\dots$$

---

$$\dots\dots\dots$$

$$473 \xrightarrow{\text{estimation}} \dots\dots\dots$$

$$+ 309 \xrightarrow{\text{estimation}} + \dots\dots\dots$$

---

$$\dots\dots\dots$$



Find the sum:

$$4315 + 2413$$

$$3775 + 6400$$

$$6650 + 5400$$

$$2800 + 1769$$

$$7345 + 4213$$

$$4231 + 2868$$

# Subtraction Strategies

First strategy: Place value picture

Subtract:  $455 - 223 - 232$



Use place value picture strategy to find the difference:

$$875 - 564 = \dots\dots\dots$$

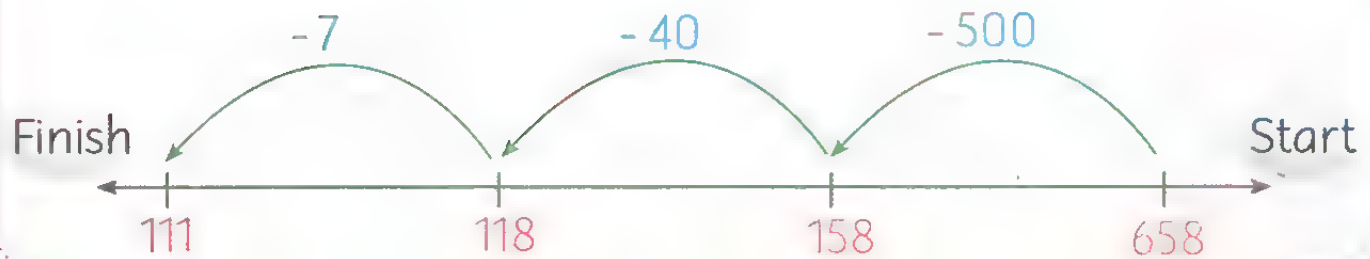
$$432 - 222 = \dots\dots\dots$$

$$365 - 241 = \dots\dots\dots$$

$$546 - 323 = \dots\dots\dots$$

## Second strategy: Number line

Subtract:  $658 - 547 = 111$



Use the number line strategy to find the difference:

$$954 - 453 = \dots\dots\dots$$



$$648 - 436 = \dots\dots\dots$$



$$327 - 214 = \dots\dots\dots$$



$$873 - 352 = \dots\dots\dots$$



$$860 - 430 = \dots\dots\dots$$



$$765 - 345 = \dots\dots\dots$$



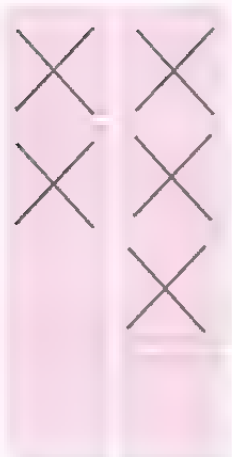
# Lesson 57



Use the place value strategy to find the difference then check by addition problem:

Subtraction problem

$$896 - 534 = 362$$



XXX



Addition problem to check

$$362 + 534 = 896$$

$$300 + 500 = 800$$

$$62 + 34 = 96$$

$$800 + 96 = 896$$

$$925 - 610 = \dots\dots\dots$$

$$3557 - 1325 = \dots\dots\dots$$





Use one of subtraction strategies to find the difference then check by addition problem:

Subtraction problem

$$9548 - 4135 = \dots\dots\dots$$

Addition problem to check

$$1579 - 1525 = \dots\dots\dots$$

$$9437 - 4235 = \dots\dots\dots$$

Chapter (6)  
Lesson  
(58)

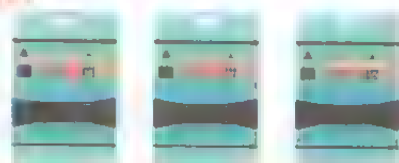


1 Tick (✓) the right operation:

Mona bought 3 crayon boxes. Each box has 5 crayons.

How many crayons are there with Mona?

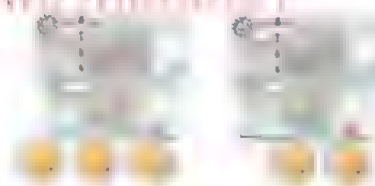
addition subtraction multiplication division



Huda saved 18 pounds in a month. She saved 17 pounds in the second month.

How many pounds did Huda save in the two months?

addition subtraction multiplication division



Ahmed distributed 8 apples equally among 4 friends.

How many apples did everyone take?

addition subtraction multiplication division



Mona had 100 pounds. She gave 50 pounds to her sister.

How many pounds are left with Mona?

addition subtraction multiplication division





Solve the following problems:

A school has 875 students. Another school has 541 students.  
What is the difference between number of students in both schools?

.....

.....

.....



A library had 305 books. 325 books were borrowed.  
How many books are left in the library now?

.....

.....

.....



A school has 741 boys and 598 girls.

How many students are there in the school?

.....

.....

.....



## Lesson 58

In a library, there are 3 boxes of books. Each box has 200 books.

How many books are there in the library?

---

---

---



Omnia bought a vacuum cleaner for 2750 pounds. She paid 950 pounds.

How much money must Omnia pay?

---

---

---



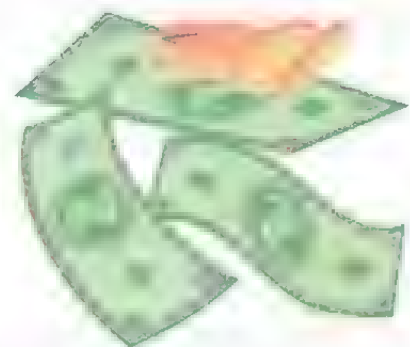
Ahmed saved 2785 pounds in a month. In the next month he saved 1395 pounds.

How many pounds did Ahmed save in all?

---

---

---



## Chapter (6)

### Lesson

### (59)

# Capacity

Remember



Ruler is used for measuring  
lengths

Measuring lengths units

millimeter - centimeter -  
meter - kilometer

Clock is used for measuring  
time

Measuring time units

second - minute - hour - day -  
week - month - year



What units are used for measuring liquid capacity?

Capacity is the amount of liquid a container can hold.

Units  
of capacity

Liter is used to measure  
big amounts

(L)



Milliliter is used to measure  
small amounts

(ml)

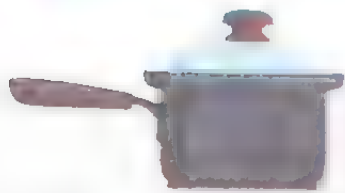




# Lesson 59

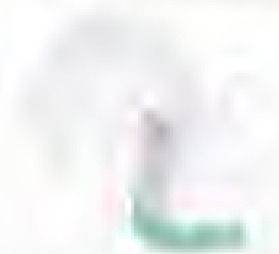


Tick (✓) below the suitable unit:



liters \_ milliliters

--	--



liters \_ milliliters

--	--



liters \_ milliliters

--	--



liters \_ milliliters

--	--



liters \_ milliliters

--	--



liters \_ milliliters

--	--



liters \_ milliliters

--	--



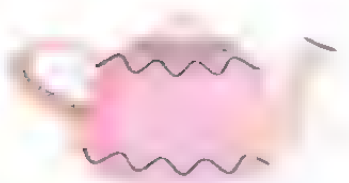
liters \_ milliliters

--	--



liters \_ milliliters

--	--



liters \_ milliliters

--	--



liters \_ milliliters

--	--



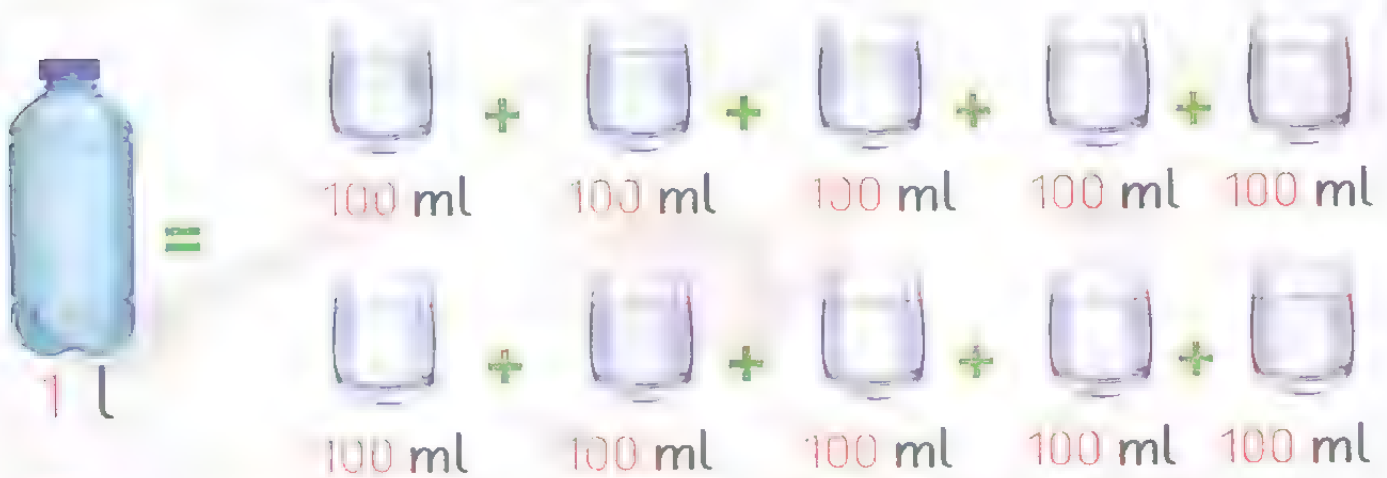
liters \_ milliliters

--	--

## Relation between milliliter (ml) and liter (l)

Liter = 1000 milliliters

Liter can fill 10 glasses. Each glass can hold 100 milliliters



Which of the following has more capacity?

Use (> , < or =):



# Lesson 59

2 Arrange from the smallest to the greatest according to the capacity:



3 Tick (✓) under the suitable estimation:



35 l   800 ml

--	--



35 l   400 ml

--	--



35 l   40 ml

--	--



1 l   5 ml

--	--



3 l   4 ml

--	--



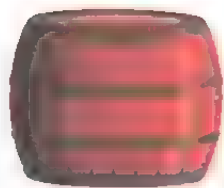
4 l   20 ml

--	--



5 l   200 ml

--	--



35 l   500 ml

--	--



15 l   550 ml

--	--

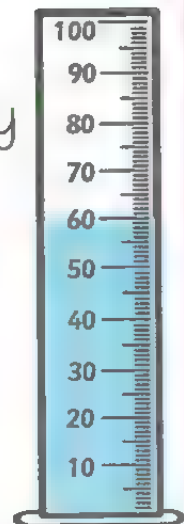
## Chapter (6)

### Lesson (60)

#### Graduated cylinder

Note the following picture:

- Graduated cylinder is used to measure liquid capacity
- Lines refers to each milliliter
- It has scale from 0 to 100
- The capacity of the liquid is 60 ml



1 Answer the following:



If a liter fills 10 cups, each cup is 100 milliliters. Find the capacity as the example.

- |   |        |   |       |   |       |   |       |             |
|---|--------|---|-------|---|-------|---|-------|-------------|
| 1 | 2 cups | = | 2     | × | 100   | = | 200   | milliliters |
| 2 | 3 cups | = | ..... | × | ..... | = | ..... | milliliters |
| 3 | 5 cups | = | ..... | × | ..... | = | ..... | milliliters |
| 4 | 7 cups | = | ..... | × | ..... | = | ..... | milliliters |
| 5 | 9 cups | = | ..... | × | ..... | = | ..... | milliliters |



# Lesson 60



Write the capacity of each container:

100 ml



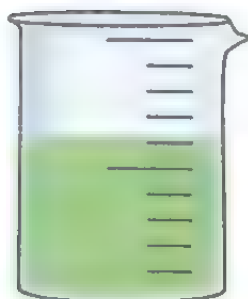
..... ml

300 ml



..... ml

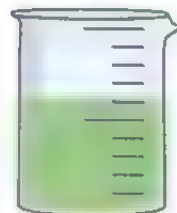
1 l



..... ml

200 ml

100 ml



..... ml

500 ml



..... ml

1 l



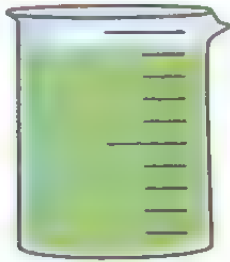
..... ml





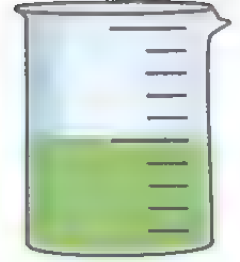
Match:

1l

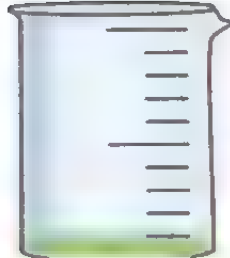


1l

1l



1l



100 ml

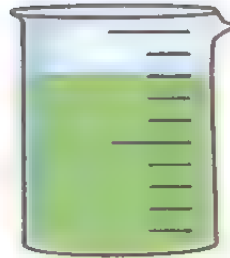
500 ml

900 ml

1l



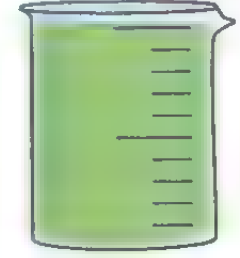
1l



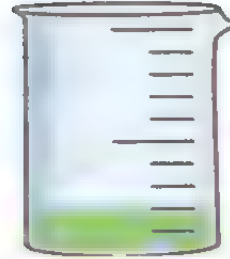
400 ml

200 ml

1l



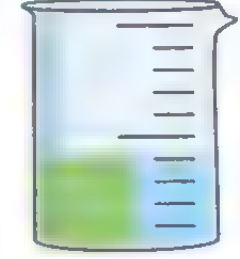
1l



600 ml

800 ml

1l



# Review on Chapter 5



Find the products:

$$\begin{array}{rclcl} 10 & \times & 9 & = & \dots\dots\dots \\ 10 & \times & 2 & = & \dots\dots\dots \\ 400 & \times & 3 & = & \dots\dots\dots \\ 50 & \times & 8 & = & \dots\dots\dots \\ 60 & \times & 6 & = & \dots\dots\dots \\ 900 & \times & 7 & = & \dots\dots\dots \\ 100 & \times & 9 & = & \dots\dots\dots \\ 500 & \times & 8 & = & \dots\dots\dots \\ 30 & \times & 7 & = & \dots\dots\dots \end{array}$$

$$\begin{array}{rclcl} 70 & \times & 8 & = & \dots\dots\dots \\ 7000 & \times & 2 & = & \dots\dots\dots \\ 300 & \times & 9 & = & \dots\dots\dots \\ 200 & \times & 2 & = & \dots\dots\dots \\ 4000 & \times & 7 & = & \dots\dots\dots \\ 600 & \times & 9 & = & \dots\dots\dots \\ 2000 & \times & 6 & = & \dots\dots\dots \\ 800 & \times & 8 & = & \dots\dots\dots \\ 7000 & \times & 1 & = & \dots\dots\dots \end{array}$$



Find the results:

$$\begin{array}{r} 375 \\ + 83 \\ \hline \end{array}$$

$$\begin{array}{r} 236 \\ + 464 \\ \hline \end{array}$$

$$\begin{array}{r} 2354 \\ + 3271 \\ \hline \end{array}$$

$$\begin{array}{r} 6321 \\ + 2594 \\ \hline \end{array}$$

$$\begin{array}{r} 5123 \\ - 3011 \\ \hline \end{array}$$

$$\begin{array}{r} 7897 \\ - 5438 \\ \hline \end{array}$$

$$\begin{array}{r} 3758 \\ - 375 \\ \hline \end{array}$$

$$\begin{array}{r} 9873 \\ - 3488 \\ \hline \end{array}$$



**3 Circle the value of colored digit:**

1 3457

( 4 - 400 - 4000 )

2 43657

( 500 - 5 - 50 )

3 6478

( 600 - 6000 - 60 )

4 4237

( 70 - 7 - 7000 )

5 45324

( 40000 - 400 - 400000 )

6 362452

( 600 - 60000 - 6000 )



**4 Write the place value of the colored digit:**

3421

\_\_\_\_\_

7892

\_\_\_\_\_

31576

\_\_\_\_\_

731278

\_\_\_\_\_

342501

\_\_\_\_\_

398750

\_\_\_\_\_



**5 Compare using (> , < or =):**

2436



243

8725



83001

49509



59760

7351



7372

42134



34154

1000



100 tens

7999



32000

7825



8725

79000



79005

375



1000



## Review



### 6 Story problems:

If a school has 653 boys and 598 girls.  
How many students are there in the school?



A library had 3475 books. 625 books were borrowed.  
How many books are left in the library?



### 7 Put (✓) below the suitable estimation:



250 l   250 ml



30 l   30 ml



2 l   2 ml



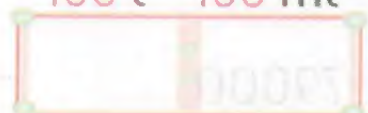
3 l   3 ml



200 l   200 ml



100 l   100 ml



# Worksheet



## 1 Choose the correct answer:

- 1  $8 \times 9 =$  ..... ( 27 - 39 - 72 )
- 2 700 hundreds = ..... thousands ( 7 - 70 - 700 )
- 3 500 cm = ..... m ( 5 - 50 - 500 )
- 4  $81 \div 9$  .....  $3 \times 3$  ( > - < - = )
- 5 The value of 8 in 3861 ( 8 - 800 - 80 )
- 6 2000 ml = ..... l ( 20 - 200 - 2 )



## 2 Complete:

- 1 The factors of 4 are ....., ....., .....
- 2 4040 in word form .....
- 3 The area of 


 = .....
- 4  $20 \times 50 =$  .....
- 5 .....  $\div 6 = 5$



## 3 Write the place value and the value for the colored digit:

Number	Place value	Value
625316		
98271		
15674		
820974		



## Review



### 4 Calculate area and perimeter:



Area = .....

Perimeter = .....



Area = .....

Perimeter = .....



### 5 Firstly: Write the time on the digital clock:



### Secondly: Answer:

Samer wanted to distribute 50 pounds equally among 5 of his children.

How many pounds will each one take?

.....